JAMECO®

ELECTRONICS

Brand Names and Generic Equivalents
Guaranteed Lowest Prices & Great Service

Catalog 234
November 2003

Save!
New Lower Prices

- Over 700 prices reduced
- Save up to 45%



Now! 100's of New Cables & Connectors

- Audio, BNC, Digital, Test & Video
- AMP, Amphenol, Belden, Cinch & Molex

See index on page 5

Low-Price Guarantee

99% In-Stock

24/7 Service

New and Out-of-Production

Aim for Great Values in Electronic Components

800.831.4242

www.Jameco.com

Yes! Both the Lowest Prices & Great Service.

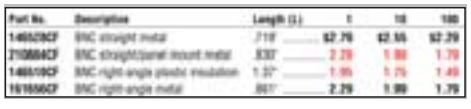


You're probably aware of companies that advertise a few low prices, and you probably know of companies that purport to offer the best service levels. But in most cases you must choose between service and savings.

At Jameco, we take a different approach. We strive to provide the best of both worlds by offering the finest combination of the lowest prices and great service.

Save with the Lowest Prices…

Whether you need a name brand product or a generic equivalent, Jameco is committed to helping you save money. Look for the items with red prices throughout this catalog which



means they have been reduced. Over 700 items have been lowered since we published our previous catalog just three months ago.

We truly stand behind our efforts to provide the best price. That's why long ago we instituted our Low-Price Guarantee. So if you manage to find a print ad with a lower price, just give us a call with the information. Our sales representatives will be happy to adjust the price, and they'll be sure to communicate the information to our pricing specialists. Be sure to look below at some of the price comparisons we have found. All were updated on September 22, 2003.

Of course, another company may lower a few of their printed prices after we publish our catalog. Rest assured we'll still honor our low-price guarantee!

...And Great Service

We're also committed to providing the best service in the industry. With Jameco, you can place your order anytime of day or night by phone, fax, web or eMail. Orders placed by 6 PM EST will ship out the same business day, so you can have your products tomorrow. And since over 99% of our products are in stock, backorders are few and far between.

Frequent buyers can benefit the most. We'll assign a personal rep who understands your needs, product requirements, logistical issues and more. Our customers have told us this personalized service saves them time, reduces costs and eliminates the headaches they have experienced elsewhere. We think you'll appreciate it too.



You'll also find a host of other valuable services available throughout this catalog and our website. For instance, detailed manufacturer's specifications for most of our products are at www.Jameco.com, and the download is FREE. Use it today and bookmark it for tomorrow!

Check Out These Sample Comparisons

Product Description	Jameco Part No.	Jameco Page #	Jameco Price	Digi-Key® Corp.	Mouser® Electronics	Newark InOne®	Minimum Savings
Fluke 177 DMM	192663CF	149	$193.95	—	—	$203.70	$9.75
Switching Supply, 43W	163985CF	9	$14.95	—	—	$37.11	$22.16
Table Supply, 25W	221751CF	51	$27.95	$118.00	$41.14	—	$13.19
Fan, 12VDC, 43CFM	172460CF	61	$9.95	$34.23	—	$25.63	$15.68
Wall Adap, 16VAC	100108CF	58	$7.95	$12.36	—	—	35.7%
PIC16C711-04/P	193359CF	70	$3.59	$4.20	$4.40	$4.21	14.5%
CD4049 CMOS IC	13055CF	71	$.29	$0.39	$0.55	$0.64	25.6%
LM318N Linear IC	23608CF	75	$.59	$1.50	—	$1.50	52.8%
SMT LM317LM IC	193551CF	81	$.32	$0.58	$0.53	$0.35	8.6%
Tant Cap, 0.1µf, 35V	33486CF	88	$.25	$0.39	$0.30	$0.48	16.7%
Radial Cap, 470µf, 25V	158289CF	86	$.15	$0.70	$0.18	$0.24	16.7%
LED, PCB	104264CF	96	$.35	$0.45	$0.47	$0.601	22.2%
Opto, MOC3010	26278CF	95	$.49	$0.87	$0.87	$0.87	43.7%
Transistor, PN2907A	213954CF	81	$.038	$0.26	$0.06	$0.06	36.7%
Cermet Pot, 1/2W	63212CF	90	$.79	$1.29	$1.02	$1.03	22.5%

Check Out All of These New Products!

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See Page 5 for Directory.

Affordable Wireless Security

2.4GHz Wireless Security Camera with Receiver

Your own full-color indoor video monitoring / security system is only seconds away! The compact, wall-mountable camera transmits up to 150 feet for convenient viewing on a standard TV or recording on a standard VCR. And the expandable FM receiver comes ready to monitor up to 4 locations by simply installing additional cameras. Complete package includes camera, receiver, remote control, power adapters and RCA cables. All you need is a TV or VCR. See pages 207-208 for more security products.



Part No.	Description	Price
233375EF	Wireless Camera with receiver and remote	$79.99

Our Fastest Low-Cost Flash Programmer

Slash programming time of high-density flash memory devices. The Xeltek SuperPro 3000U Programmer programs Intel® 28F320W18 flash memory chips in just 18 seconds. Featuring three modes of operation plus universal pin drivers for up to 100 pins, it's as versatile as it is fast. Advanced design minimizes ground bounce noise, allowing accurate programming of devices running on as little as 1.5 volts. With the standard 40-pin socket, it supports more than 11,000 devices from over 100 IC manufacturers, and you can download free monthly updates to support new devices. See page 233 for detailed specifications on this and other new programmers.



XELTEK

Part No.	Description	1	5
231221EF	SuperPro-3000 USB Universal Programmer	$989.95	$940.45

Tools You Can Trust by Paladin

Professionals know top-quality tools are well worth every penny in superior functionality and lifelong, trouble-free performance. That's why they choose Paladin for crimpers, strippers and punch-down tools. In addition to making the finest standard tools, this American company also innovates with new designs that make your work faster and easier. For example, turn to page 176 and read about the new SurePunch™ punch-down tool with built-in detachable worklight. It's such a great idea, it's patented. You'll also find a wide selection of crimpers, cutters, strippers and slitters for all types of cable, from coax to twisted-pair and fiber optic.

Paladin Tools®



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PRICES

Prices are effective 10-20-03.
Prices and discounts are subject to change without notice.

Test Equipment and Bench Power Supplies for Speed and Convenience

For testing speed and convenience, be sure to see our new test and measurement instruments, including power supplies. For instance, check out our new 100 MHz analog oscilloscope. It instantly displays signal values just like a digital multimeter when you fly your cursor over the graph. And take a look at our new programmable power supplies — ideal for automated testing. You can program them from the keypad or rotary knob, or, for the ultimate in efficiency, directly from your serial-connected PC. See them on pages 144-148 & 155-156.



Protek



INSTEK



Medical-Grade Power Supplies — Now in Table-Top and Wall Models



Looking for external medical-grade power supplies? Our space-saving new wall adapters plug directly into an AC outlet, eliminating the need for power supply space in your product. Or, for the greatest location flexibility, select a table-top model. Like all of our low-leakage-current medical-grade products, these power supplies have been UL and CE approved for medical applications. For more information, see page 53.

GlobTek®



International Wall Adapters

Why inventory wall adapters for every country you might sell to? With Phihong's Interchangeable Plug Adapters, you snap the plug for a particular country onto a single wall adapter and you're ready to support countries anywhere from the U.K. to Australia and beyond. And since they employ switching regulators, you can rest assured knowing your product meets the emerging evergreen requirements of the European Union and other countries. Want your mobile products to operate in several countries? Simply add multiple plugs and your customers are ready to go! See page 53 for outputs from 3.3 to 24V.

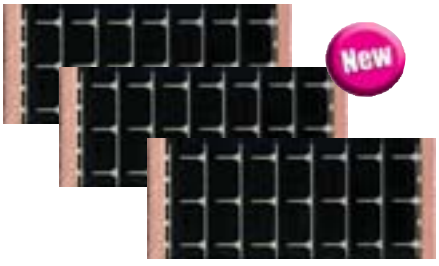
Universal Power Supplies

Speaking of design-in flexibility, take a look at our new Phihong switching power supplies. They accept input ranging from 90VAC to 264VAC, so you can use them anywhere in the world. Check out pages 6-9 for more information.



PHIHONG

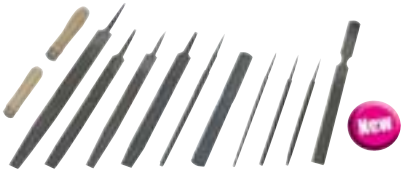
Shatter the Boundaries of Glass



PowerFilm®

Imagine a solar cell that's lightweight, thin and flexible as a file folder…and every bit as unbreakable. New PowerFilm® technology makes these industrial-strength solar cells just 0.05mm thick. Encapsulated in sheets of weatherproof material, they can be dropped, stepped on, even riddled with bullets, and they still won't quit! Read about them on page 214.

12-Piece File Tool Kit



- 12-piece fine and coarse file assortment for metal and wood
- 3-piece metal flat; 2-piece metal triangle; 1 each wood round; metal round; wood half-round; metal half-round; metal/wood half-round; and 2 detachable handles

Part No.	Description	1	5
233314CF	12-piece file kit	$14.95	$13.45

Heavy Duty Tubing Cutter



- Clever design eliminates spiraling, resulting in straight clean cuts with no burrs
- Cuts copper, brass, aluminum tubing and thin-wall conduit up to 1-1/8" diameter
- Extra cutter wheel stored in body
- Lightweight aluminum body and knob
- Fold-away reamer
- Telescopic wheel-feeding mechanism keeps turning radius constant
- Length: 4.8"

Part No.	Description	1	5
227475CF	Tubing cutter	$19.95	$17.95

Our Low-Price Guarantee Doesn't Get Much Use...



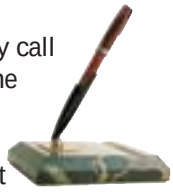
... and we like it that way! But it is offered for a good reason. We take our pricing and product sourcing seriously, searching around the world to identify sources for the lowest prices and highest quality products.

Help Avoid Duplicate Catalogs

While we don't intend to send multiple catalogs to the same person, on occasion we do make mistakes. If you're incorrectly receiving multiple catalogs, please visit our web site at **www.Jameco.com/DupCats** and we'll remove the duplicates. Alternatively, you can mail the duplicate back-covers/mailing label(s) to us:

Jameco Electronics - Duplicate Catalogs
1355 Shoreway Rd., Belmont, CA 94002

Open an Account Today!



It's easy to open an account at Jameco. Simply call us or visit **www.Jameco.com** and we'll take the information over the phone. If it's more convenient, we can fax you a credit application right away. And don't worry about delays. Most applications are processed within minutes.

Just in Time Stocking – Get It at Jameco



Take advantage of our "Just In Time" fast delivery. Jameco has stocking levels that guarantee 99% in-stock availability, without the exceptions others may impose. Place your order any business day before 6:00 PM EST, and you can be assured your order is on its way that day!



We've Added Resources

Many of the products we offer have free technical documents online, so you don't have to wait for snail mail. And in addition to placing orders on the web, you can also request RMAs. For more information visit **www.Jameco.com** today!

Contact Information

Order Desk 24/7, 365 Days a Year
Phone: 1-800-831-4242
Fax: 1-800-237-6948
E-mail: sales@Jameco.com

Website www.Jameco.com

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Fax: 650-592-2503
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Brazil: 000-817-455-6119
New Zealand: 080-044-0470

Find Products and Savings Faster!

Looking for great savings or new products? Our simplified legend helps you identify both quickly and easily, and now you can see which prices we reduced since the last catalog!



Find New Savings Faster!

We're not afraid to show you our latest price reductions. You'll find over 700 price reductions from the previous catalog just by looking for the red prices in this catalog!



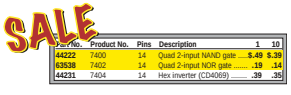
Save with Quantity Discounts

Buy in quantity and save! Corporate buyers will especially appreciate savings up to 54% off single unit prices. Look for products highlighted in green.

Part No.	Description	1	10
156785	Soldering station	$69.95	$62.95
156814	Sharp conical tip	4.95	4.49
134631	Replacement sponge	2.99	2.69

Save on Sale Items!

Sale products are highlighted in yellow, so you can identify items whose prices have been reduced in all quantities for a limited time.



Part No.	Product No.	Pins	Description	1	10
44222	7400	14	Quad 2-input NAND gate	$.49	$.39
63538	7402	14	Quad 2-input NOR gate	.19	.14
44231	7404	14	Hex inverter (CD4069)	.39	.35

Find New Products Quickly

Look for the part numbers in magenta. We've added a complete line of cables and connectors, as well as hundreds of other products.

Part No.	Product No.
182991	RMH08LP

Last Chance Opportunities

Unfortunately we're not always able to restock certain hard-to-find products. In this case we'll print blue part numbers, so if we know there's limited stock, you'll also know.

Part No.	Product No.
155643	DC603F1

Out-Of-Production Products

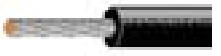
Some products are no longer produced, and yet we know you need them. That's why we occasionally offer pulled or refurbished products. Pulled part numbers are clearly printed in purple and refurbished in brown. Each is backed by our standard Jameco warranty.

Part No.	Product No.
121232	AW10D1GA

Part No.	Product No.
25101	MC146818

Your Source For Low-Price

Belden® Cable Now at Jameco!


Professionals don't take chances when it comes to cables, so here's great news. Now you can get your Belden cables from Jameco. The undisputed leader in quality cabling, Belden is the cable of choice for critical applications like Internet, intranet and communication network backbones. We offer the Belden cable of your choice in spools ranging from 100' to 1000'. You'll find a wide variety of cable types, stranded and solid core, single and multi-conductor, coax, and more. And you'll find them all at very competitive prices, with our fast, efficient service at no extra charge. Be sure to check out our complete selection on pages 126 to 128.

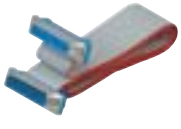


New


Save Big with Our Computer Data Cables



Why over-pay when we have it for less? Jameco offers a broad selection of common computer cables often at a fraction of the cost, and you won't have to give up quality! Our external computer cables feature molded strain reliefs, plated contacts for reliable connections and are backed by our 15 years of experience in the cable business. Be sure to visit pages 182, 193, 194, 202 & 203 and review our selection of Cat 6 network, USB 2.0, printer, serial and drive cables. We even have a broad range of audio and video cables for your multimedia needs!




Where's the USB 2.0? Right Here!





Burning up the keyboard in search of the best source for USB 2.0 cables? Look no further than our hotter-than-ever selection. Choose from USB cables with transparent connectors, "disappearing" cables as thin as a shoestring that retract into a disk the diameter of a quarter, and more. Our new USB 2.0 assemblies are built with gold connectors and low-resistance conductors for ultra-reliable connectivity. All are available on pages 192-193.

We've Pumped Up the Volume on Our Audio/Video Cable Selection



Now you can get all your audio and video cables and components with one phone call. For starters, you'll find a complete selection of molded RCA audio/video cables and adapters for all applications, from low-cost to high-end. Our new digital audio optical cables and adapters deliver the cleanest sound from DVDs, CDs, home theaters, Mini Disks, DATs, Game Consoles, or other digital equipment, even at extreme audio volumes. We even carry Component Video and Audio/Video cables for plasma. If you'd rather make your own high-quality cables, be sure to check out our new cable and wire selection from Belden on pages 126-128.



New



Computer Network Cables

No one wants to install networking cables today and then have to update to faster cables in just a short time! That's why we offer the latest Cat 6 networking products. You'll find a growing selection of pre-assembled cables on pages 202 & 203, and we now offer Belden networking cable on pages 126 & 127. Be sure to also check out our latest 19" rack mount products on pages 196-197.


New


Great Selection, Greater Savings!

Pre-assembled cables;
Raw wire and connectors;
Tools to cut, strip and crimp.






...For Your Applications...

Networking Office and Home
Audio/Video/Multimedia
Power Interconnect




...At the Right Prices

Just check out some of the many examples to the right.

Cables And Connectors!

AMP Joins the Jameco Line



Introducing AMP BNC and RF connectors—the standard for quality around the globe. Get Amp top-quality brand-name products, along with all your other electronic components and tools, with one call to Jameco. Take a look at our selection on pages 128 & 132.



Amphenol with One Call



Amphenol is the world leader in the design, manufacture and supply of RF interconnect systems for the automotive, broadband, instrumentation, Internet, miltary / aerospace and wireless infrastructure markets. Now, you'll find the Amphenol products you need at Jameco. See them on page 134.





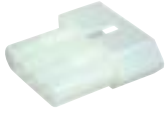
Molex Products, Now at Jameco!



With a history dating back to 1938, Molex is the industry's leading manufacturer of electronic, electrical and fiber optic PC board interconnects. We're proud to add this popular line of products to the Jameco catalog, so you can select exactly the right level of quality and economy for the job at hand. See our Molex products on pages 130-131.







Cinch Connectors



Serving satisfied customers since 1917, Cinch manufactures a wide range of interconnect products. We're pleased to introduce a variety of popular Cinch terminal blocks. Check them out on page 137.



Save Money With Our Cables and Connectors

Product Description	Jameco Part No.	Jameco Page #	Jameco Price	Digi-Key® Corp.	Mouser® Electronics	Newark InOne®	Minimum Savings
6' Power Cord Hospital	196277CF	49	$2.95	$6.20	$3.39	—	13.0%
Ribbon Cable, 34-Cond.	37840CF	125	$.43	$0.534	—	—	19.5%
Wire, 20AWG Stranded	125840CF	125	$4.95	$13.70	$10.16	—	51.3%
D-Sub Cable, 25-pin, F-F, 10'	181331CF	194	$6.69	$10.03	—	—	33.3%
Audio Cable, stereo, 6'	228451CF	142	$1.79	—	$3.59	—	50.1%
Audio Cable, 5" Y, RCA	196808CF	143	$.75	—	$1.22	—	38.5%
RCA Jack, PCB, Black	220572CF	142	$.45	$0.61	$0.53	$0.69	15.1%
D-Sub, 9-pin, AMP	222640CF	132	$.95	$1.01	$1.01	$1.02	5.9%
ZIF Socket, 28pin, LP	102744CF	141	$5.49	$6.50	$6.50	—	15.5%
Header, 34-pin, 2-row, M	204038CF	141	$.75	$2.22	$1.41	—	46.8%
Amp Header, 640383-7	231503CF	128	$.47	$0.50	$0.50	$0.57	6.0%
Amp Header, 640389-8	232426CF	128	$1.06	$1.14	$1.14	$1.14	7.0%
Molex 22-03-2061	232215CF	131	$.34	$0.65	$0.36	$0.36	5.6%
Cinch Term Block 8-140	231036CF	137	$2.49	$3.34	—	$3.26	23.6%
Cinch Term Block 5-141	231386CF	137	$1.85	$2.41	—	$2.37	21.9%
PS/2 DIN, 6-pin, F, PCB	119474CF	139	$.75	$0.90	—	—	16.7%
DC Pwr Plug, 2.1x5.5mm	28759CF	59	$.59	$0.65	$1.08	—	9.2%
Cable, 36" RG58, BNC	11404CF	135	$4.29	$8.95	—	$12.98	$4.66
Term Block, 12-pos., 10mm	215028CF	137	$1.89	$8.64	—	$4.57	$2.68
D-Sub, 15-pin, M, IDC	117381CF	133	$1.55	$4.08	—	—	$2.53
IDC Plug, 40-pin, DIP	42711CF	138	$1.15	$3.05	—	—	$1.90

Just Added!

Product Line	Page #
Cables	
Cat 6	202
RCA / Digital Video	142-143
S-Video	142
TOSLINK	143
USB	193
Connectors	
Amp	128, 132
Amphenol	134
D-Sub	132-133
Headers	128-129, 131
Molex	130-131
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Raw Wire	
Belden	126-128
Coax	125-126
Hook-up	125, 128
Multi-conductor / Twisted-pair	125, 127
Network	125

Don't worry about backorders.

We'll Send It Today!

Just place your order by 6PM EST for same business day shipment.

25-Watt Open Frame

NLP-25 Series: Single & Triple Outputs

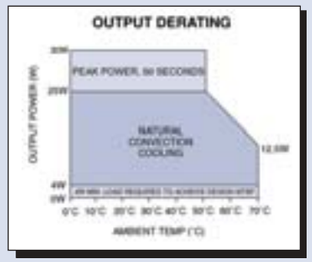
- 100% full-load burn-in
- Universal AC input
- 1U Package: 4" x 2.1" x 0.9"
- Two-year warranty
- 3.3 watts/in³ maximum
- 0°C to +50°C working temp. (see output derating)
- Mating connectors: P/Ns 104432CF & 104723CF, pg 129

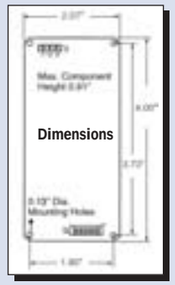


TOP QUALITY U.S. BRAND

Detailed below in blue, the NLP25 series provides 25W of power with free-air convection cooling that can peak at 30W for 60 seconds. Standard features include over-voltage and short-circuit protection. The NLP25 series, with full international safety approvals and the CE mark, meets conducted and radiated emissions EN55022 level B and complies to EN61000-4-2/3/4/5/6 immunity standards.

NEW Phihong Power Supplies below and on pages 8-9



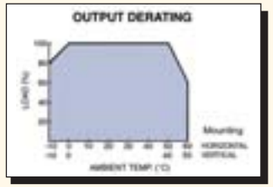


25-Watt Open Frame

PS-25 & PD-25 Series: Single & Dual Outputs

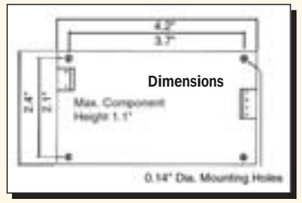
- 100% full-load burn-in
- Universal AC input
- 2.1 watts/in³ maximum
- Two-year warranty
- 105°C output capacitor
- Mating connectors: P/Ns 104432CF & 104715CF, pg 129
- -10°C to +60°C working temp (see output derating)

Shown below in buff color, the Mean Well PS-25 & PD-25 series are low-cost, high-quality open-frame 25-watt switchers that can be used for many lower-power commercial applications, both single and dual-output. Full rated power is available with free-air convection cooling in an industry-standard package size and mounting dimensions. They feature universal input and numerous features such as short-circuit, over-voltage, over-load and over-temperature protection.





PERFORMANCE AT VALUE PRICES



25-Watt Enclosed

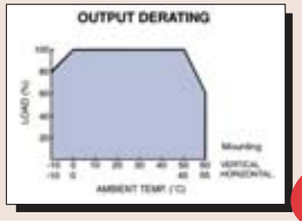
S-25 Series: Single Output

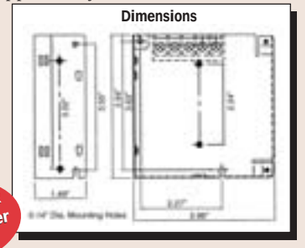
- 100% full-load burn-in
- Universal AC input
- No minimum load required
- 1.2 watts/in³ maximum
- 105°C output capacitor
- Two-year warranty
- Mating connectors: 103587CF, pg 123
- -10°C to +60°C working temp. (see output derating)
- Mounting hardware: use P/N 222121CF, 222156CF, 222172CF & 222164CF; see www.Jameco.com for specifications



PERFORMANCE AT VALUE PRICES

Highlighted below in tan, the Mean Well S-25 series are low-cost, high-quality enclosed switchers that feature universal input of 85 to 264VAC, as well as 120 to 370VDC for battery-supported applications. Full rated power is available with free-air convection cooling. Protections include short-circuit, over-voltage and overload with auto-recovery. They are approved by UL and TUV, and carry the CE mark for use worldwide.





Call for LOWER PRICES on Larger Quantities

	Jameco Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Output Power	Input (VAC @ Hz)	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25	
Open Frame	229041CF	Phihong	PSA15LN3-050	+5V@0-3A	15.0W	90-264@47-63	4.33x1.57x0.91	4.02x1.26x0.16	2.42	50	2.0		1.0	30	3,000	0.75	—	16	—	5	65	0.2	UL/CUL/TUV/CE	229041CF	$18.95	$17.09	$15.39	Open Frame
	229059CF	Phihong	PSA15LN3-120	+12V@0-1.25A	15.0W	90-264@47-63	4.33x1.57x0.91	4.02x1.26x0.16	2.42	120	2.0		1.0	30	3,000	0.75	—	16	—	5	65	0.2	UL/CUL/TUV/CE	229059CF	18.95	17.09	15.39	
	229067CF	Phihong	PSA15LN3-240	+24V@0-0.63A	15.0W	90-264@47-63	4.33x1.57x0.91	4.02x1.26x0.16	2.42	240	2.0		1.0	30	3,000	0.75	—	16	—	5	65	0.2	UL/CUL/TUV/CE	229067CF	18.95	17.09	15.39	
	230527CF	Phihong	PSA25LS-050	+5V@0-5A	25.0W	85-264@47-63	5.00x2.00x1.10	4.10x1.70x0.14	2.29	50	2.0	⟷	1.0	30	3,000	0.75	—	16	—	—	70	0.3	UL/CUL/CSA/TUV	230527CF	23.49	21.15	18.99	
	230535CF	Phihong	PSA25L-301	+5V@0.2-2A; +12V@0.1-1A; -12V@0-0.3A	25.0W	90-264@47-63	3.60x2.50x1.10	3.30x2.20x0.16	2.46	50	2.0		1.0	30	3,000	0.25	—	16	—	—	70	0.2	UL/CUL/TUV/CE	230535CF	23.49	21.15	18.99	
	218472CF	Artesyn	NLP25-7605	+5V@0-5A	25.0W	90-264@47-440	4.00x2.07x0.91	3.73x1.80x0.13	3.31	50	2.0		2.0	—	3,000	0.4	—	5	5-500Hz, 2.4G	—	70	0.3	UL/CSA/VDE/CE	218472CF	$41.29 37.95	34.19	30.75	
	218481CF	Artesyn	NLP25-7612	+12V@0-2.08A	25.0W	90-264@47-440	4.00x2.07x0.91	3.73x1.80x0.13	3.31	120	2.0		2.0	—	3,000	0.4	—	5	5-500Hz, 2.4G	—	70	0.3	UL/CSA/VDE/CE	218481CF	$41.29 37.95	34.19	30.75	
	218499CF	Artesyn	NLP25-7624	+24V@0-1.04A	25.0W	90-264@47-440	4.00x2.07x0.91	3.73x1.80x0.13	3.31	150	2.0		2.0	—	3,000	0.4	—	5	5-500Hz, 2.4G	—	70	0.3	UL/CSA/VDE/CE	218499CF	$41.29 37.95	34.19	30.75	
	218501CF	Artesyn	NLP25-7608	+5V@0.2-2A; +12V@0.1-0.8A; -12V@0-0.1A	20.8W	90-264@47-440	4.00x2.07x0.91	3.73x1.80x0.13	2.75	50	2.0		2.0	—	3,000	0.4	—	5	5-500Hz, 2.4G	—	70	0.3	UL/CSA/VDE/CE	218501CF	$41.29 37.95	34.19	30.75	
	212361CF	Mean Well	PS-25-3.3	+3.3V@0-5A	16.5W	85-264@47-63	4.20x2.40x1.10	3.70x2.10x0.14	1.32	80	2.5		0.5	40	3,000	0.5	30	17	10-500Hz, 2G	—	66	0.3	UL/CUL/TUV/CE	212361CF	18.95	17.95	17.19	
	212353CF	Mean Well	PS-25-5	+5V@0-5A	25.0W	85-264@47-63	4.20x2.40x1.10	3.70x2.10x0.14	2.06	80	2.0	⟷	0.5	40	3,000	0.5	30	17	10-500Hz, 2G	—	74	0.3	UL/CUL/TUV/CE	212353CF	18.95	17.95	17.19	
	148603CF	Mean Well	PS-25-12	+12V@0-2.1A	25.2W	85-264@47-63	4.20x2.40x1.10	3.70x2.10x0.14	2.08	100	1.0		0.3	40	3,000	0.5	30	17	10-500Hz, 2G	—	78	0.3	UL/CUL/TUV/CE	148603CF	18.95	17.95	17.19	
	216768CF	Mean Well	PS-25-15	+15V@0-1.7A	25.5W	85-264@47-63	4.20x2.40x1.10	3.70x2.10x0.14	2.11	100	1.0		0.3	40	3,000	0.5	30	17	10-500Hz, 2G	—	78	0.3	UL/CUL/TUV/CE	216768CF	18.95	17.95	17.19	
	212345CF	Mean Well	PS-25-24	+24V@0-1A	24.0W	85-264@47-63	4.20x2.40x1.10	3.70x2.10x0.14	1.98	240	0.5		0.2	40	3,000	0.5	30	17	10-500Hz, 2G	—	79	0.3	UL/CUL/TUV/CE	212345CF	18.95	17.95	17.19	
	212311CF	Mean Well	PD-2505	+5V@0.1-3A; -5V@0.1-2.5A	25.0W	85-264@47-63	4.20x2.40x1.10	3.70x2.10x0.14	2.06	50	4.0		1.0	40	3,000	0.5	30	16	10-500Hz, 2G	—	73	0.3	UL/CUL/TUV/CE	212311CF	19.95	18.95	17.95	
	212337CF	Mean Well	PD-25A	+5V@0.2-2.5A; +12V@0.1-1.5A	25.0W	85-264@47-63	4.20x2.40x1.10	3.70x2.10x0.14	2.06	50	1.0		0.5	40	3,000	0.5	30	16	10-500Hz, 2G	—	71	0.3	UL/CUL/TUV/CE	212337CF	19.95	18.95	17.95	
	212329CF	Mean Well	PD-25B	+5V@0.2-2A; +24V@0.1-1A	25.2W	85-264@47-63	4.20x2.40x1.10	3.70x2.10x0.14	2.08	50	1.0		0.5	40	3,000	0.5	30	16	10-500Hz, 2G	—	77	0.3	UL/CUL/TUV/CE	212329CF	19.95	18.95	17.95	
	148689CF	Mean Well	PD-2512	+12V@0.1-1.2A; -12V@0.1-1A	24.0W	85-264@47-63	4.20x2.40x1.10	3.70x2.10x0.14	1.98	50	3.0		0.5	40	3,000	0.5	30	16	10-500Hz, 2G	—	74	0.3	UL/CUL/TUV/CE	148689CF	19.95	18.95	17.95	
Enclosed	123246CF	Mean Well	S-25-5	+5V@0-5A	25.0W	85-264@47-63	see diagram	see diagram	1.17	50	1.0	⟷	0.5	15	3,000	0.75	50	10	10-500Hz, 2G	10	72	0.8	UL/TUV/CE	123246CF	43.95	27.99	23.99	Enclosed
	123254CF	Mean Well	S-25-12	+12V@0-2.1A	25.2W	85-264@47-63	see diagram	see diagram	1.18	100	0.5		0.5	15	3,000	0.75	50	10	10-500Hz, 2G	10	76	0.8	UL/TUV/CE	123254CF	43.95	27.99	23.99	
	123262CF	Mean Well	S-25-15	+15V@0-1.7A	25.5W	85-264@47-63	see diagram	see diagram	1.20	100	0.5		0.5	15	3,000	0.75	50	10	10-500Hz, 2G	10	77	0.8	UL/TUV/CE	123262CF	43.95	27.99	23.99	
	123271CF	Mean Well	S-25-24	+24V@0-1.1A	26.4W	85-264@47-63	see diagram	see diagram	1.24	100	0.5		0.5	15	3,000	0.75	50	10	10-500Hz, 2G	10	80	0.8	UL/TUV/CE	123271CF	43.95	27.99	23.99	

Other Versions Available: Call 800-831-4242

* Primary Output

Limited Supply – Special Offers – 90-Day Warranty

	Jameco Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Output Power	Input (VAC @ Hz)	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25	
Open Frame	184866CF	Skynet	SNP-0502-B	+5V@0-2A	10.0W	115/230@50-60	4.4x1.6x0.8	4.0x1.3x0.14	1.78	50	1.0		1.0	30	—	—	—	—	—	—	70	0.2	UL/CUL/TUV	184866CF	$12.95	$11.69	$10.49	Open Frame
	189747CF	Tamura	79642191	+5V@1A; +12V@1A	17.0W	120/230@50-60	4.7x2.4x1.1	—	1.37	—	—	⟷	—	—	—	—	—	—	—	—	—	0.4	—	189747CF	8.95	7.65	5.75	
	173374CF	AUTEC	UPS20-2002	+5V@1A; +12V@1.5A	23.0W	115/230@50-50	5.0x3.0x1.1	5.1x1.6x0.16	1.39	50	2.0		1.0	20	—	—	—	20	—	—	68	0.5	UL/CSA/TUV	173374CF	8.95	7.65	5.75	
	166967CF	Super Mac	U002512010	+5V@2.5A; +12V@1A	24.5W	100-240@50-60	3.7x2.5x1.2	—	2.21	—	—		—	—	—	—	—	—	—	—	—	0.4	UL/CSA/TUV	166967CF	12.95	11.05	8.29	
	210770CF	ST	G25AC-51333	+5.1V@3A; +12.5V@0.75A; +33.3V@0.02A	25.0W	120@60	4.0x2.2x1.3	—	2.19	—	—		—	—	—	—	—	—	—	—	—	0.5	UL	210770CF	$7.95 6.95	6.29	5.65	
Enclosed	205751CF	Volgen	EXU-150R7	+15V@0.7A	10.0W	100/120@50-60	3.7x2.9x0.9	2.3x1.7x0.08	1.04	—	0.8		0.4	30	—	1.0	200	—	10-55Hz, 20G	10	72	0.4	UL/CSA	205751CF	$24.95 12.95	11.69	10.49	Enclosed
	205727CF	Volgen	EXU-15001	+15V@1A	15.0W	100/120@50-60	4.4x2.9x0.9	2.3x1.7x0.08	1.31	—	0.8		0.4	30	—	1.0	200	—	10-55Hz, 20G	10	67	0.4	UL/CSA	205727CF	$24.95 12.95	11.69	10.49	
	208961CF	Volgen	PRK15U-0524W	+5V@2.5A; +24V@0.4A	15.0W	120@50-60	4.6x3.2x1.1	4.0x2.5x0.08	0.93	100	1.0	⟷	0.4	12	—	1.0	100	20	10-55Hz, 20G	5	64	0.5	UL/CSA	208961CF	$34.95 14.95	13.49	12.15	
	205794CF	Volgen	PRK15U-1212W	+12V@1A; +12V@0.5A	15.0W	100/120@50-60	5.2x3.2x1.1	4.0x2.5x0.08	0.82	170	1.0		0.4	12	—	1.0	100	20	10-55Hz, 20G	5	64	0.4	UL/CSA	205794CF	$29.95 12.95	11.69	10.49	

* Primary Output

Color Code Legend: New | Sale | Qty Save

New Lower Prices Marked in Red

25 to 45-Watt Switching DC Power Supplies

Power

40-Watt Open Frame

NFS-40 Series: Single & Triple Outputs

ARTESYN TECHNOLOGIES

TOP QUALITY U.S. BRAND

- 100% full-load burn-in
- No minimum load required
- 50 watts with 20 CFM of air
- 1U Package: 5" x 3" x 1.2"
- Mating connectors: P/Ns 104432CF & 104731CF, pg 129
- 0˚ to +70˚C working temperature (see output derating)
- Universal AC input
- 2.8 watts/in³ maximum
- Two-year warranty



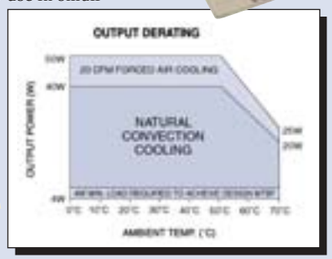
Detailed below in blue, the Artesyn NFS40 series are industry-standard 40W power supplies with the capability to supply 50 watts with forced air cooling and to automatically operate from any input voltage from 85 to 264VAC. Over-voltage and short-circuit protection are standard features. The NFS40 is ideal for use in equipment installed around the world because of its UL, CSA, VDE, EN60950 and IEC 950 approvals. These low-profile switchers with high power density are perfect for use in small digital systems of all types.

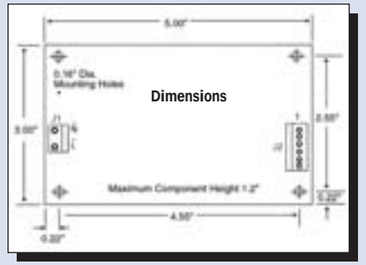
UNDERSTANDING POWER SUPPLIES #1

DERATING: The specified reduction in operating parameter to improve reliability. Generally for power supplies, it is the reduction in output power at elevated temperatures.



NEW Phihong Power Supplies below and on pages 6-7





40-Watt Enclosed

S-40 & T-40 Series: Single & Triple Output

MEAN WELL

- 100% full-load burn-in
- 105˚C output capacitor
- Mating connectors: 103587CF, pg 123
- -10˚C to +60˚C working temperature (see output derating)
- Mounting hardware: use P/N 222121CF, 222156CF & 222172CF; see www.Jameco.com for specifications
- Universal AC input
- 1.6 watts/in³ maximum
- Two-year warranty

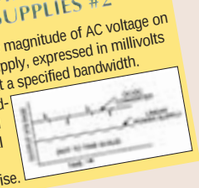
PERFORMANCE AT VALUE PRICES

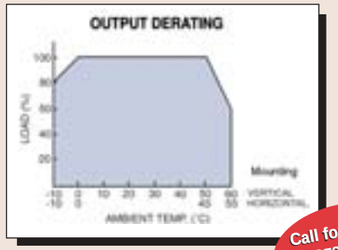


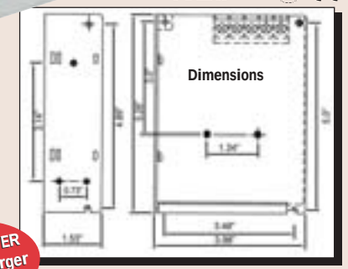
Highlighted in tan below, the S-40 and T-40 series from Mean Well derive their impressive reliability from a conservative design, the exclusive use of high-quality components, and 100% full-load burn-in. Assured to operate correctly anywhere in the world, these switchers feature universal input voltage ranges of 85-264VAC and 120-370VDC. Protection includes short-circuit, overload and over-voltage; and a novel soft-start circuit limits the AC surge current. Manufacturer guaranteed safety standards comprise UL1012, UL1950 and TUV EN60950; and these products have earned the European CE mark.

UNDERSTANDING POWER SUPPLIES #2

RIPPLE AND NOISE: The magnitude of AC voltage on the output of a power supply, expressed in millivolts peak-to-peak or RMS, at a specified bandwidth. This is the result of feed-through of the rectified line frequency, internal switching transients and other random noise.







Call for LOWER PRICES on Larger Quantities

Open Frame

Jameco Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Power	Input (VAC @ Hz)	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25
229075CF	Phihong	PSA45-050	+5V@0-8A	40.0W	90-264@47-63	5.00x3.00x1.20	4.56x2.55x0.16	2.46	50	2.0		2.0	20	—	3.5	—	12	—	—	70	0.9	UL/CSA/TUV/CE	229075CF	$29.95	$26.95	$24.25
229091CF	Phihong	PSA45-120	+12V@0-4A	48.0W	90-264@47-63	5.00x3.00x1.20	4.56x2.55x0.16	2.66	120	2.0		2.0	20	—	3.5	—	12	—	—	70	0.9	UL/CSA/TUV/CE	229091CF	29.95	26.95	24.25
229112CF	Phihong	PSA45-240	+24V@0-2A	48.0W	90-264@47-63	5.00x3.00x1.20	4.56x2.55x0.16	2.66	240	2.0		2.0	20	—	3.5	—	12	—	—	70	0.9	UL/CSA/TUV/CE	229112CF	29.95	26.95	24.25
229121CF	Phihong	PSA4531	+5V@0-4A; +12V@0-1.5A; -12V@0-0.5A	44.0W	90-264@47-63	5.00x3.00x1.20	4.56x2.55x0.16	2.44	50	2.0	⟷	2.0	20	—	3.5	—	12	—	—	70	0.9	UL/CSA/TUV/CE	229121CF	31.95	28.79	25.89
229139CF	Phihong	PSA4534	+5V@0-4A; +15V@0-1.2A; -15V@0-0.5A	45.5W	90-264@47-63	5.00x3.00x1.20	4.56x2.55x0.16	2.53	50	2.0		2.0	20	—	3.5	—	12	—	—	70	0.9	UL/CSA/TUV/CE	229139CF	31.95	28.79	25.89
229147CF	Phihong	PSA4541	+5V@0-3A; +12V@0-2A; -5V@0-0.5A; -12V@0-0.5A	47.5W	90-264@47-63	5.00x3.00x1.20	4.56x2.55x0.16	2.64	50	2.0		2.0	20	—	3.5	—	12	—	—	70	0.9	UL/CSA/TUV/CE	229147CF	32.95	29.65	26.69
218510CF	Artesyn	NFS40-7605	+5.1V@0-6A	30.6W	85-264@47-440	5.00x3.00x1.20	4.55x2.55x0.16	1.70	100	2.0		0.2	12	3,000	0.32	—	14	5-500Hz, 2.4G	5	70	0.6	UL/CSA/VDE/CE	218510CF	~~$62.95~~ 49.95	44.99	40.49
218528CF	Artesyn	NFS40-7612	+12V@0-3.3A	39.6W	85-264@47-440	5.00x3.00x1.20	4.55x2.55x0.16	2.20	120	2.0		0.2	12	3,000	0.32	—	14	5-500Hz, 2.4G	5	70	0.6	UL/CSA/VDE/CE	218528CF	~~$62.95~~ 49.95	44.99	40.49
218536CF	Artesyn	NFS40-7624	+24V@0-1.6A	38.4W	85-264@47-440	5.00x3.00x1.20	4.55x2.55x0.16	2.13	240	2.0	⟷	0.2	12	3,000	0.32	—	14	5-500Hz, 2.4G	5	70	0.6	UL/CSA/VDE/CE	218536CF	~~$62.95~~ 49.95	44.99	40.49
190086CF	Artesyn	NFS40-7608	+5V@0-3A; +12V@0-2A; -12V@0-0.35A	43.2W	85-264@47-440	5.00x3.00x1.20	4.55x2.55x0.16	2.40	50	2.0		0.2	12	3,000	0.32	—	14	5-500Hz, 2.4G	5	70	0.6	UL/CSA/VDE/CE	190086CF	~~$62.95~~ 49.95	44.99	40.49
218552CF	Artesyn	NFS40-7610	+5V@0-3A; +15V@0-2A; -15V@0-0.35A	50.2W	85-264@47-440	5.00x3.00x1.20	4.55x2.55x0.16	2.79	50	2.0		0.2	12	3,000	0.32	—	14	5-500Hz, 2.4G	5	70	0.6	UL/CSA/VDE/CE	218552CF	~~$62.95~~ 49.95	44.99	40.49

Enclosed

Jameco Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Power	Input (VAC @ Hz)	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25
123289CF	Mean Well	S-40-5	+5V@0-8A	40.0W	85-264@47-63	see diagram	see diagram	1.34	75	1.0		0.5	60	3,000	1.0	50	15	10-500Hz; 2G	10	72	1.0	UL/CUL/TUV/CE	123289CF	49.95	31.99	27.99
123297CF	Mean Well	S-40-12	+12V@0-3.5A	42.0W	85-264@47-63	see diagram	see diagram	1.41	100	0.5		0.5	30	3,000	1.0	50	15	10-500Hz; 2G	10	76	1.0	UL/CUL/TUV/CE	123297CF	49.95	31.99	27.99
202139CF	Mean Well	S-40-15	+15V@0-2.8A	42.0W	85-264@47-63	see diagram	see diagram	1.41	100	0.5		0.5	30	3,000	1.0	50	15	10-500Hz; 2G	10	76	1.0	UL/CUL/TUV/CE	202139CF	49.95	31.99	27.99
123318CF	Mean Well	S-40-24	+24V@0-1.8A	43.0W	85-264@47-63	see diagram	see diagram	1.44	100	0.5		0.5	30	3,000	1.0	50	15	10-500Hz; 2G	10	78	1.0	UL/CUL/TUV/CE	123318CF	49.95	31.99	27.99
201988CF	Mean Well	T-40A	+5V@0.6-3A; +12V@0.2-2A; -5V@0.1-0.5A	41.5W	85-264@47-63	see diagram	see diagram	1.43	100	0.5		0.5	20	3,000	3.5	50	16	10-500Hz, 2G	10	72	1.0	UL/CUL/CE	201988CF	54.95	34.99	30.99
201996CF	Mean Well	T-40B	+5V@0.6-3A; +12V@0.2-2A; -12V@0.1-0.5A	45.0W	85-264@47-63	see diagram	see diagram	1.55	100	0.5		0.5	20	3,000	3.5	50	16	10-500Hz, 2G	10	72	1.0	UL/CUL/CE	201996CF	54.95	34.99	30.99
202008CF	Mean Well	T-40C	+5V@0.6-3A; +15V@0.2-1.5A; -15V@0.1-0.5A	45.0W	85-264@47-63	see diagram	see diagram	1.55	100	0.5		0.5	20	3,000	3.5	50	16	10-500Hz, 2G	10	72	1.0	UL/CUL/CE	202008CF	54.95	34.99	30.99

NEW

Other Versions Available: Call 800-831-4242

* Primary Output

Limited Supply – Special Offers – 90-Day Warranty

Open Frame

Jameco Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Power	Input (VAC @ Hz)	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25
210841CF	Power-One	MAP42-1005	+5V@0-8A	40.0W	120-240@50-60	5.0x3.0x1.3	4.6x2.6x0.16	2.05	50	1.0		0.2	38	2,600	0.5	20	15	10-2kHz, 6G	10	70	0.6	UL/CSA/TUV/CE	210841CF	~~$62.95~~ $19.95	$14.99	$10.49
173551CF	Autec	UPS40-1002	+5V@0.2-3A; +12V@0.1-2A	40.0W	115/230@50-60	7.0x2.0x1.2	6.6x1.6x0.16	2.38	50	3.0		0.5	20	3,600	—	—	—	—	—	65	0.5	UL/CSA/TUV	173551CF	10.95	9.85	8.85
210788CF	Samsung	PSPL430201A	+5V@5A; +12V@1.5A	43.0W	100-120@50-60	6.1x2.1x1.0	—	3.28	—	—	⟷	—	—	—	—	—	—	—	—	—	0.6	UL/CUL	210788CF	9.95	8.95	7.95
163985CF	Astec	BM41012	+5V@3.75A; +12V@1.5A; -12V@0.4	41.0W	115@50-60	6.4x3.2x1.7	—	1.18	—	—		—	—	—	—	—	—	—	—	—	1.0	UL/CSA/VDE	163985CF	14.95	12.75	9.59
168225CF	Converter Concepts	STRC0006	+5V@2.7A; +12V@1.2A; +35V@.35A; -5V@.18A	30.0W	85-135@57-63	9.0x2.0x1.6	—	0.78	—	—		—	—	—	—	—	—	—	—	—	0.5	UL	168225CF	5.95	5.35	4.79

Enclosed

Jameco Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Power	Input (VAC @ Hz)	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25
208944CF	Volgen	EXU-5006	+5V@6A	30.0W	120@50-60	4.7x2.9x1.4	—	1.57	—	0.8		0.4	30	2,000	0.5	200	—	10-55Hz, 2G	10	76	0.6	UL/CSA	208944CF	~~$34.95~~ 19.95	17.99	16.19
205882CF	Volgen	MRE-05006U	+5V@6A	30.0W	115/240@50-60	6.2x3.9x1.4	—	0.88	100	0.8		0.4	—	3,000	0.7	200	—	10-55Hz, 20G	10	—	0.5	UL/CSA/TUV	205882CF	~~$34.95~~ 17.95	16.19	14.55
205778CF	Volgen	EXU-480R6	+48V@0.6A	30.0W	100/120@50-60	5.4x2.9x1.3	3.9x1.3x0.12	1.47	—	0.8		0.4	30	2,000	0.5	200	—	10-55Hz, 2G	10	76	0.5	UL	205778CF	~~$34.95~~ 19.95	17.99	16.19
205807CF	Volgen	PRK30U-0512W	+5V@3A; +12V@1.2A	30.0W	100/120@50-60	6.3x3.6x1.5	4.0x2.5x0.08	0.88	100	1.0	⟷	0.4	35	1,500	0.5	100	20	10-55Hz, 2G	5	75	0.6	UL/CSA	205807CF	~~$34.95~~ 19.95	17.99	16.19
205815CF	Volgen	PRK30U-0524W	+5V@3A; +24V@0.6A	30.0W	100/120@50-60	6.3x3.6x1.5	4.0x2.5x0.08	0.88	100	1.0		0.4	35	1,500	0.5	100	20	10-55Hz, 2G	5	75	0.6	UL/CSA	205815CF	~~$34.95~~ 19.95	17.99	16.19
205823CF	Volgen	PRK30U-1212W	+12V@1A; +12V@1A	30.0W	100/120@50-60	6.3x3.6x1.5	4.0x2.5x0.08	0.88	170	1.0		0.4	35	1,500	0.5	100	20	10-55Hz, 2G	5	75	0.6	UL/CSA	205823CF	~~$34.95~~ 19.95	17.99	16.19

* Primary Output

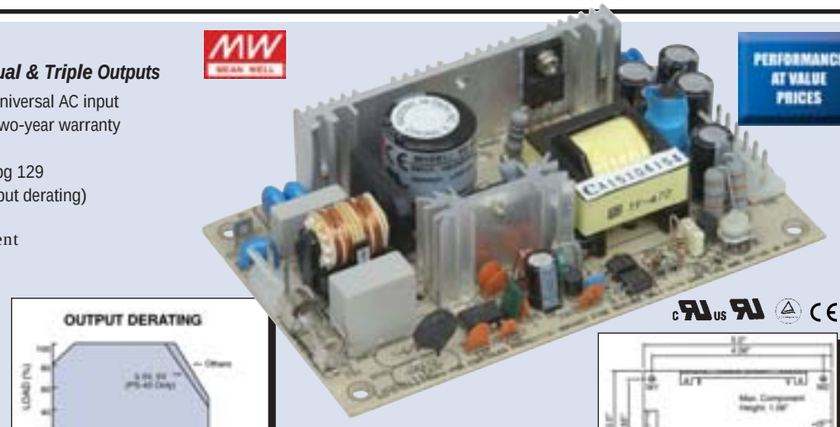
45 to 60-Watt Switching DC Power Supplies

45-Watt Open Frame

PS-45, PD-45 & PT-45 Series: Single, Dual & Triple Outputs

- 100% full-load burn-in
- 2.7 watts/in³ maximum
- 105˚C output capacitor
- Mating connectors: 104432CF & 104731CF, pg 129
- -10˚C to +60˚C working temperature (see output derating)
- Universal AC input
- Two-year warranty

Detailed in blue below, the Mean Well PS-45, PD-45 and PT-45 series offer excellent performance with high reliability in a small open-frame package. These 45-watt switchers support full output power with free-air convection cooling. The high-density open-frame package features industry-standard mounting dimensions and only 1.1" component height. Intended for virtually any medium power-application, these units provide short-circuit and over-voltage protection, as well as overload protection with auto-recovery.

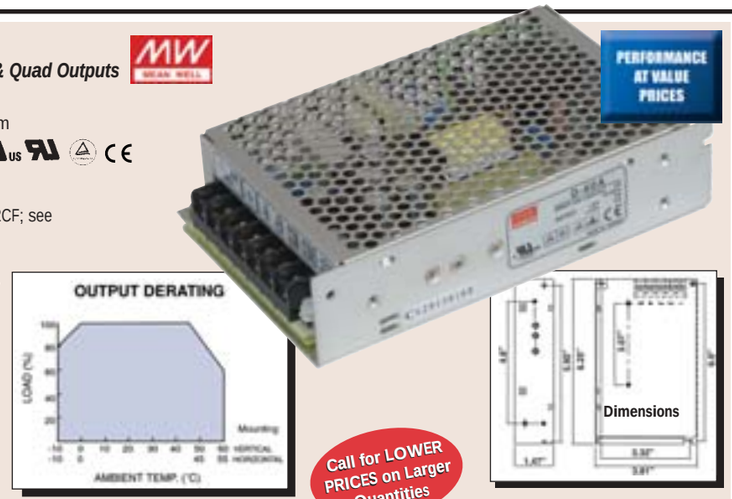


60-Watt Enclosed

S-60, D-60, T-60 & Q-60 Series: Single, Dual, Triple & Quad Outputs

- 100% full-load burn-in
- 105˚C output capacitor
- Two-year warranty
- Mating connectors: 103587CF, pg 123
- -10˚C to +60˚C working temperature (see output derating)
- Mounting hardware: use P/N 222130CF, 222156CF & 222172CF; see www.Jameco.com for specifications
- Universal AC input
- 1.7 watts/in³ maximum

Highlighted in tan, these highly popular series have long been among Mean Well's most requested products. The solid, reliable, low-cost design features overload protection to 150% of rated load with auto-recovery, and over-voltage protection to 135% of rated output voltage. Input AC surge current is limited to a safe level by a novel soft-start circuit. Working temperature is -10˚C to 60˚C, with derating below 0˚C and above 45˚C. Safety standards include UL1012, UL1950, IEC950 and TUV EN60950, and these products all carry the European CE mark. The DC output voltage can be adjusted ±10% of nominal rating.



Call for LOWER PRICES on Larger Quantities

	Jameco Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Power	Input (VAC @ Hz)	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25	
Open Frame	217331CF	Mean Well	PS45-5	+5V@0-8A	40.0W	90-264@47-440	5.00x3.00x1.06	4.56x2.55x0.15	2.22	100	3.0		1.0	20	3,000	0.5	30	20	10-500Hz; 2G	10	74	0.5	UL/CUL/TUV/CE	217331CF	$29.95	$19.99	$17.99	Open Frame
	213727CF	Mean Well	PS45-12	+12V@0-3.7A	44.4W	90-264@47-440	5.00x3.00x1.06	4.56x2.55x0.15	2.47	100	2.0		1.0	20	3,000	0.5	30	20	10-500Hz; 2G	10	76	0.5	UL/CUL/TUV/CE	213727CF	29.95	19.99	17.99	
	213719CF	Mean Well	PS45-24	+24V@0-1.9A	45.6W	90-264@47-440	5.00x3.00x1.06	4.56x2.55x0.15	2.53	100	2.0	⟷	1.0	20	3,000	0.5	30	20	10-500Hz; 2G	10	78	0.5	UL/CUL/TUV/CE	213719CF	29.95	19.99	17.99	
	213701CF	Mean Well	PS45-48	+48V@0-1A	48.0W	90-264@47-440	5.00x3.00x1.06	4.56x2.55x0.15	2.67	100	2.0		1.0	20	3,000	0.5	30	20	10-500Hz; 2G	10	78	0.5	UL/CUL/TUV/CE	213701CF	29.95	19.99	17.99	
	194861CF	Mean Well	PD45A	+5V@0.4-3.2A; +12V@0.2-2	40.0W	90-264@47-440	5.00x3.00x1.06	4.56x2.55x0.15	2.42	50	3.0		1.0	20	3,000	0.5	20	20	10-500Hz; 2G	10	77	0.5	UL/CUL/TUV/CE	194861CF	33.95	20.99	18.99	
	194870CF	Mean Well	PD45B	+5V@0.4-3.2A; +24V@0.2-1.2A	44.8W	90-264@47-440	5.00x3.00x1.06	4.56x2.55x0.15	2.72	50	3.0		1.0	20	3,000	0.5	20	20	10-500Hz; 2G	10	78	0.5	UL/CUL/TUV/CE	194870CF	33.95	20.99	18.99	
	88401CF	Mean Well	PT45B	+5V@0.4-3A; +12V@0.2-2A; -12V@0-0.3A	45.0W	90-264@47-440	5.00x3.00x1.06	4.56x2.55x0.15	1.88	50	3.0		1.0	20	3,000	0.5	20	20	10-500Hz; 2G	10	75	0.5	UL/CUL/TUV/CE	88401CF	33.95	22.99	19.99	
Enclosed	123326CF	Mean Well	S-60-5	+5V@0-12A	60.0W	85-264@47-63	see diagram	see diagram	1.67	120	1.0		0.5	30	3,000	3.5	50	10	10-500Hz; 2G	10	73	1.2	UL/CUL/TUV/CE	123326CF	57.95	35.99	30.99	Enclosed
	123334CF	Mean Well	S-60-12	+12V@0-5A	60.0W	85-264@47-63	see diagram	see diagram	1.67	120	0.5	⟷	0.5	30	3,000	3.5	50	10	10-500Hz; 2G	10	76	1.2	UL/CUL/TUV/CE	123334CF	57.95	35.99	30.99	
	123342CF	Mean Well	S-60-15	+15V@0-4A	60.0W	85-264@47-63	see diagram	see diagram	1.67	150	0.5		0.5	30	3,000	3.5	50	10	10-500Hz; 2G	10	77	1.2	UL/CUL/TUV/CE	123342CF	57.95	35.99	30.99	
	123351CF	Mean Well	S-60-24	+24V@0-2.5A	60.0W	85-264@47-63	see diagram	see diagram	1.67	150	0.5		0.5	30	3,000	3.5	50	10	10-500Hz; 2G	10	79	1.2	UL/CUL/TUV/CE	123351CF	57.95	35.99	30.99	
	123457CF	Mean Well	D-60A	+5V@0.3-4A; +12V@0.2-3A	56.0W	85-264@47-63	see diagram	see diagram	1.56	75	0.5		0.5	30	3,000	1.0	50	10	10-500Hz; 2G	10	73	1.2	UL/CUL/TUV/CE	123457CF	60.95	37.99	32.99	
	123465CF	Mean Well	D-60B	+5V@0.3-3A; +24V@0.2-1.8A	58.0W	85-264@47-63	see diagram	see diagram	1.62	75	0.5		0.5	30	3,000	1.0	50	10	10-500Hz; 2G	10	76	1.2	UL/CUL/TUV/CE	123465CF	60.95	37.99	32.99	
	123473CF	Mean Well	T-60A	+5V@0.5-5A; +12V@0.2-2.5A; -5V@0-0.5A	57.5W	85-264@47-63	see diagram	see diagram	1.60	100	1.0		0.5	30	3,000	1.0	50	10	10-500Hz; 2G	10	72	1.2	UL/CUL/TUV/CE	123473CF	$54.95 49.95	44.99	40.49	
	123481CF	Mean Well	T-60B	+5V@0.5-5A; +12V@0.2-2.5A; -12V@0-0.5A	61.0W	85-264@47-63	see diagram	see diagram	1.70	100	1.0	⟷	0.5	30	3,000	1.0	50	10	10-500Hz; 2G	10	72	1.2	UL/CUL/TUV/CE	123481CF	60.95	38.99	34.99	
	123490CF	Mean Well	T-60C	+5V@0.5-5A; +15V@0.2-2A; -15V@0-0.5A	62.5W	85-264@47-63	see diagram	see diagram	1.61	100	1.0		0.5	30	3,000	1.0	50	10	10-500Hz; 2G	10	72	1.2	UL/CUL/TUV/CE	123490CF	60.95	38.99	34.99	
	147045CF	Mean Well	Q-60B	+5V@0.5-5.5A; +12V@0.1-2A; -5V@0-0.5A; -12V@0-0.5A	60.0W	85-264@47-63	see diagram	see diagram	1.63	100	0.5		0.5	18	3,000	1.0	20	12	10-500Hz; 2G	10	70	1.2	UL/CUL	147045CF	65.95	40.99	35.99	

Other Versions Available: Call 800-831-4242

* Primary Output

SALE

Limited Supply – Special Offers – 90-Day Warranty

	Jameco Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Power	Input (VAC @ Hz)	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25	
Open Frame	190300CF	Phihong	PSA50201	+5V@1-8A; +12V@0-0.5A	46.0W	100-240@50-60	5.0x3.0x1.2	4.6x2.6x0.16	2.56	50	2.0		1.0	20	1,500	1.0	—	16	10-55Hz; 2G	1	70	0.6	UL/CUL/TUV	190300CF	$9.95 $3.95	$3.59	$3.25	Open Frame
	169050CF	Autec	UPS50-2002	+5V@0.2-3A; +12V@0.1-3A	51.0W	90-264@47-440	5.0x3.0x1.9	4.6x2.6x0.16	1.79	50	3.0		0.5	20	3,750	—	—	20	—	—	70	0.7	UL/CSA/TUV	169050CF	11.95	10.75	9.69	
	206463CF	Skynet	SNP-9F43-2	+5V@0-3A; +12V@0-3.5A	57.0W	115/230@50-60	5.0x3.0x1.3	4.6x2.6x0.16	2.92	50	1.0		1.0	30	—	—	—	20	—	—	70	0.5	UL/CSA/TUV	206463CF	12.95	11.05	8.29	
	204548CF	IPD Power	SRW-45-3102	+5V@2.5A; +14.5V@2A; -5.2V@3A	45.0W	85-264@47-63	5.0x3.0x1.2	4.6x2.6x0.16	2.50	—	0.5	⟷	—	40	4,250	—	—	16	—	10	68	0.5	—	204548CF	11.75	10.75	9.75	
	204530CF	Phihong	PSA-60-302	+5.1V@6A; +12V@1.2A; -12V@1.2A	60.0W	100-240@50-60	5.0x3.0x1.6	4.5x2.5x0.15	1.25	50	2.0		2.0	30	—	0.75	—	12	—	1	70	0.7	UL/CSA/VDE	204530CF	$29.95 14.95	13.49	12.15	
	226211CF	IPD Power	SRW-45-4008	+3.3V@5A; +3.3V@3A; +5V@3A; +12V@0.7A	45.0W	85-264@47-63	5.0x3.0x1.2	4.6x2.6x0.16	2.50	—	0.5		—	40	4,250	—	—	16	—	10	68	0.5	UL/CUL/TUV/CE	226211CF	29.95	26.95	24.29	
	204492CF	IPD Power	SRW-45-4002	+5V@5A; +15V@0.7A; -5V@2A; -15V@0.7A	45.0W	85-264@47-63	5.0x3.0x1.2	4.6x2.6x0.16	2.50	—	0.5		—	40	4,250	—	—	16	—	10	68	0.5	UL/CSA/TUV/CE	204492CF	12.49	11.35	10.35	
	204476CF	IPD Power	SRW-45-4004-27	+5V@5A; +15V@0.7A; +27V@1A; -15V@0.7A	45.0W	85-264@47-63	5.0x3.0x1.1	4.6x2.6x0.16	2.73	—	0.5		—	40	4,250	—	—	16	—	10	68	0.5	UL/CUL/TUV/CE	204476CF	$29.95 19.95	17.99	16.19	
Enclosed	211115CF	Fortron	SU65P10C	+5V@0-10A	50.0W	85-264@47-63	6.1x4.2x2.2	4.8x3.2x0.17	0.87	50	—		0.5	15	3,000	0.85	—	10	—	—	70	1.5	UL/CSA/TUV/CE	211115CF	8.95	7.95	7.29	Enclosed
	205874CF	Volgen	MRE-124R2U	+12V@4.2A	50.0W	115/240@50-60	7.1x3.9x1.6	6.7x3.6x0.08	1.13	—	—		—	—	—	—	—	—	—	—	—	0.7	UL/CSA/TUV/CE	205874CF	$39.95 21.95	19.79	17.79	
	208936CF	Volgen	EXU-481R1	+48V@1.1A	52.8W	120@50-60	4.7x3.6x1.5	—	2.08	—	0.8	⟷	0.4	30	2,000	0.5	200	—	10-55Hz; 20G	10	78	0.8	UL	208936CF	$39.95 21.95	19.79	17.79	
	205680CF	Volgen	ESK50U-0524W	+5V@3A; +24V@1.5A	51.0W	115/220@50-60	7.1x4.0x1.2	—	1.50	—	—		—	—	—	—	—	—	—	—	—	0.8	UL	205680CF	$39.95 21.95	19.79	17.79	
	205997CF	Volgen	ERK50-0524W	+5V@6A; +24V@1.5A	50.0W	120/240@50-60	7.9x4.1x1.6	—	0.96	—	—		—	—	—	—	—	—	—	—	—	1.4	—	205997CF	$39.95 16.95	15.29	13.75	
	205831CF	Volgen	PRK50U-1515W	+15V@1.5A; +15V@1.5A	50.0W	100/120@50-60	7.6x3.7x1.5	6.0x3.0x0.08	1.19	200	1.0		0.4	—	1,500	0.5	100	20	10-55Hz; 20G	5	75	0.6	UL/CSA	205831CF	$39.95 21.95	19.79	17.79	

* Primary Output

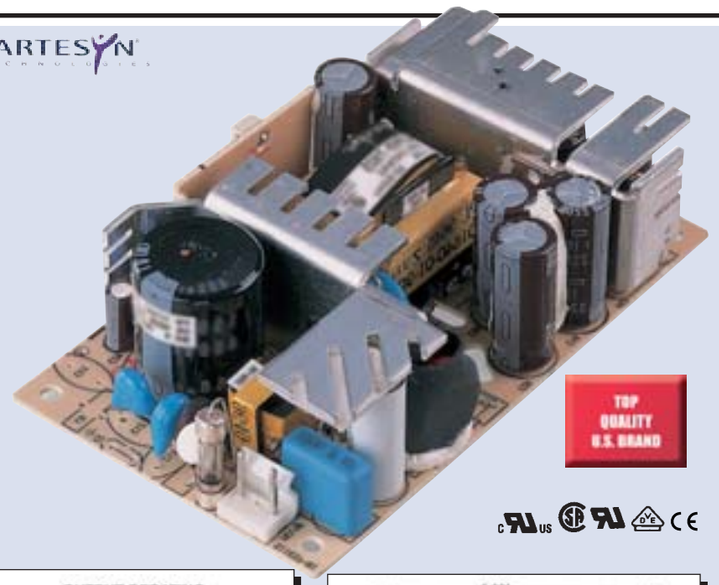
65-Watt Open Frame

NLP65-76 Series: Single & Triple Outputs

- 100% full-load burn-in
- Universal AC input
- 75 watts with 20 CFM of air
- 3.9 watts/in³ maximum
- 1U Package: 5" x 3" x 1.3"
- Two-year warranty
- Mating connectors: P/Ns 104432CF & 104731CF, pg 129
- 0˚ to +70˚C working temperature (see output derating)

Detailed in blue below, the Artesyn NLP65 series is on a 5" x 3" card with maximum component height of 1.26" – one of the smallest in the industry and perfect for 1U applications. With just 20 CFM of air, the power can be boosted 15% to 75 watts from the free-air power of 65 watts. The NLP65 series, with full international safety approvals, and the CE mark, meets conducted and radiated emissions EN55022; and complies to EN61000-4-2/3/4/5/6 immunity standards. If Power Factor Correction is required, the Artesyn NLP65-96 series is also available in the same package (see pages 14-15).

The NLP65 is designed for use in low power data networking, computer and telecom applications such as hubs, routers POS terminals, internet servers, cable modems and PBXs; as well as many industrial applications.

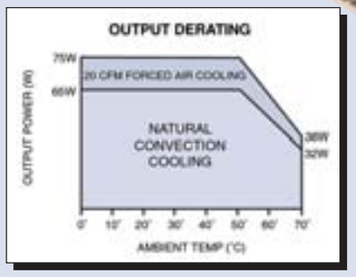


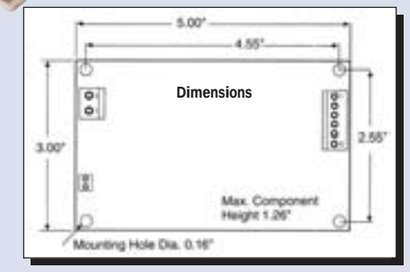
TOP QUALITY U.S. BRAND

UNDERSTANDING POWER SUPPLIES #3 & 4

SOFT-START: A feature which limits the start-up switching currents of a switching supply and causes the output voltage to rise gradually to its final value.

MTBF: Mean Time Between Failure. The failure rate of a power supply, expressed in hours, established by the actual operation or calculation from a known standard such as MIL-HDBK-217.





65-Watt Open Frame

PS-65, PD-65 & PT-65 Series: Single, Dual & Triple Outputs

- 100% full-load burn-in
- Universal AC input
- 105˚C output capacitor
- 2.9 watts/in³ maximum
- Two-year warranty
- Mating connectors: P/Ns 104432CF & 104731CF, pg 129
- -10˚C to +60˚C working temperature (see output derating)

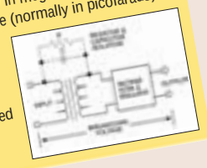
Highlighted in tan below, the PS-65 and PT-65 series open-frame switchers from Mean Well are packaged in a high-density board with industry-standard mounting dimensions and only 1.7" component height. Their impressive reliability derives from a conservative design, the exclusive use of high-quality components, and 100% full-load burn-in. Full rated power is available with free-air convection cooling. They are approved by UL and TUV, and carry the CE mark, for use worldwide. Assured to operate correctly anywhere in the world, these switchers feature universal voltage input ranges of 85-264VAC and 120-370VDC.

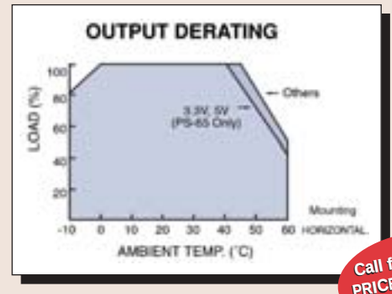


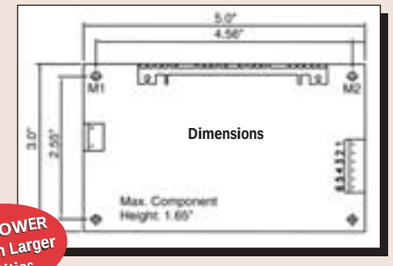
PERFORMANCE AT VALUE PRICES

UNDERSTANDING POWER SUPPLIES #5

ISOLATION: The electrical separation between input and output of a power supply by means of the power transformer. The isolation resistance (normally in megaohms) and the isolation capacitance (normally in picofarads) are generally specified and are a function of materials and spacings employed throughout the power supply.







Call for LOWER PRICES on Larger Quantities

Jameco Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Output Power	Input (VAC @ Hz)	PFC	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25	
218561CF	Artesyn	NLP65-7605	+5V@0-13A	65.0W	85-264@47-63	—	5.00x3.00x1.26	4.55x2.55x0.16	3.33	50	2.0		2.0	17	3,000	0.7	1000	16	5-500Hz; 2.4G	—	72	0.6	UL/CUL/CSA/VDE/CE	218561CF	$64.59	$57.95	$54.59	
218579CF	Artesyn	NLP65-7612	+12V@0-5.4A	64.8W	85-264@47-63	—	5.00x3.00x1.26	4.55x2.55x0.16	3.32	120	2.0		2.0	17	3,000	0.7	1000	16	5-500Hz; 2.4G	—	72	0.6	UL/CUL/CSA/VDE/CE	218579CF	64.59	57.95	54.59	
218587CF	Artesyn	NLP65-7608	+5V@0-7.5A; +12V@0-2.5A; -12V@0-0.65A	75.3W	85-264@47-63	—	5.00x3.00x1.26	4.55x2.55x0.16	3.86	50	2.0		2.0	17	3,000	0.7	1000	16	5-500Hz; 2.4G	—	72	0.6	UL/CUL/CSA/VDE/CE	218587CF	64.59	57.95	54.59	
201937CF	Mean Well	PS-65-5	+5V@0-12A	60.0W	90-264@47-440	—	5.00x3.00x1.65	4.56x2.55x0.15	2.50	100	3.0	⟷	1.0	20	3,000	0.5	20	20	10-500Hz; 2G	10	76	0.6	UL/CUL/TUV/CE	201937CF	33.95	22.99	19.99	
148638CF	Mean Well	PS-65-12	+12V@0-5.2A	62.4W	90-264@47-440	—	5.00x3.00x1.65	4.56x2.55x0.15	2.60	100	2.0		1.0	20	3,000	0.5	20	20	10-500Hz; 2G	10	79	0.6	UL/CUL/TUV/CE	148638CF	33.95	22.99	19.99	
216750CF	Mean Well	PS-65-15	+15V@0-4.2A	63.0W	90-264@47-440	—	5.00x3.00x1.65	4.56x2.55x0.15	2.63	100	2.0		1.0	20	3,000	0.5	20	20	10-500Hz; 2G	10	79	0.6	UL/CUL/TUV/CE	216750CF	33.95	22.99	19.99	
148646CF	Mean Well	PS-65-24	+24V@0-2.7A	64.8W	90-264@47-440	—	5.00x3.00x1.65	4.56x2.55x0.15	2.70	100	2.0		1.0	20	3,000	0.5	20	20	10-500Hz; 2G	10	80	0.6	UL/CUL/TUV/CE	148646CF	33.95	22.99	19.99	
201945CF	Mean Well	PS-65-27	+27V@0-2.4A	64.8W	90-264@47-440	—	5.00x3.00x1.65	4.56x2.55x0.15	2.70	100	2.0		1.0	20	3,000	0.5	20	20	10-500Hz; 2G	10	80	0.6	UL/CUL/TUV/CE	201945CF	30.95	27.89	21.95	
201953CF	Mean Well	PS-65-48	+48V@0-1.35A	64.8W	90-264@47-440	—	5.00x3.00x1.65	4.56x2.55x0.15	2.70	100	2.0		1.0	20	3,000	0.5	20	20	10-500Hz; 2G	10	80	0.6	UL/CUL/TUV/CE	201953CF	33.95	22.99	19.99	
194888CF	Mean Well	PD65A	+5V@0.4-7A;+12V@0.2-3.2A	61.1W	90-264@47-440	—	5.00x3.00x1.65	4.56x2.55x0.15	2.72	50	3.0	⟷	1.0	20	3,000	0.5	20	20	10-500Hz; 2G	10	78	0.6	UL/CUL/TUV/CE	194888CF	35.95	23.99	20.99	
194896CF	Mean Well	PD65B	+5V@0.4-3.5A; +24V@0.2-2A	65.5W	90-264@47-440	—	5.00x3.00x1.65	4.56x2.55x0.15	2.91	50	4.0		2.0	20	3,000	0.5	20	20	10-500Hz; 2G	10	81	0.6	UL/CUL/TUV/CE	194896CF	35.95	23.99	20.99	
216733CF	Mean Well	PT-65B	+5V@0.4-5.5A; +12V@0.2-2.5A; -12V@0-0.5A	63.5W	90-264@47-440	—	5.00x3.00x1.65	4.56x2.55x0.15	2.49	50	4.0		2.0	20	3,000	0.5	20	20	10-500Hz; 2G	10	77	0.6	UL/CUL/TUV/CE	216733CF	34.95	25.99	22.99	
216725CF	Mean Well	PT-65C	+5V@0.4-5.5A; +15V@0.2-2A; -15V@0-0.5A	65.0W	90-264@47-440	—	5.00x3.00x1.65	4.56x2.55x0.15	2.55	50	3.0		1.0	20	3,000	0.5	20	20	10-500Hz; 2G	10	77	0.6	UL/CUL/TUV/CE	216725CF	34.95	25.99	22.99	

Other Versions Available: Call 800-831-4242

Open Frame

* Primary Output

Limited Supply – Special Offers – 90-Day Warranty

Jameco Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Output Power	Input (VAC @ Hz)	PFC	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25	
169068CF	Autec	UPS65-1051	+5V@0.2-13A	65.0W	115/230@50-60	—	6.0x3.5x1.5	4.8x3.2x0.16	2.06	50	1.0		0.5	20	3,750	—	—	20	—	—	70	0.8	UL/CSA/VDE	169068CF	$11.95	$10.19	$7.65	
204468CF	IPD Power	SRW-65-2006	+5V@9A; +12V@2A	65.0W	85-264@47-63	—	6.0x4.0x1.1	5.7x3.5x0.15	2.46	50	1.0		—	40	4,250	—	—	16	—	10	72	0.9	UL/CUL/TUV/CE	204468CF	~~$21.95~~ 16.95	15.29	13.75	
196824CF	Encad	U006612010	+5.2V@3A ; +24V@2A	65.0W	90-250@50-60	—	6.3x3.9x1.5	—	1.76	—	—	⟷	—	—	—	—	—	—	—	—	—	0.6	UL/CUL/TUV	196824CF	15.95	13.59	10.19	
215706CF	Mean Well	PT-65D	+5V@0.5-4A; +12V@0.2-2A; +24V@0.2-1A	65.0W	90-264@47-440	—	5.0x3.0x1.5	4.6x2.6x0.15	2.89	50	2.0		1.0	20	3,000	0.5	30	20	10-500Hz; 2G	10	79	0.6	UL/CUL/TUV/CE	215706CF	29.95	26.95	24.29	
229850CF	IPD Power	SRW-65-3003	+5V@5A; +15V@3.5A; -15V@1A	65.0W	85-264@47-63	—	6.0x4.0x1.1	5.7x3.5x0.15	2.46	50	1.0		—	40	4,242	—	—	16	—	10	72	0.8	UL/CUL/TUV/CE	229850CF	22.95	20.69	18.59	
204484CF	IPD Power	SRW-65-4003	+5V@5A; +12V@2A; +24V@1A; -12V@2A	65.0W	85-264@47-63	—	6.0x4.0x1.1	5.7x3.5x0.16	2.46	—	1.0		—	40	4,250	—	—	16	—	10	72	0.9	UL/CSA/TUV	204484CF	~~$42.95~~ 21.95	19.79	17.79	

Open Frame

* Primary Output

60 to 75-Watt Switching DC Power Supplies (Continued)

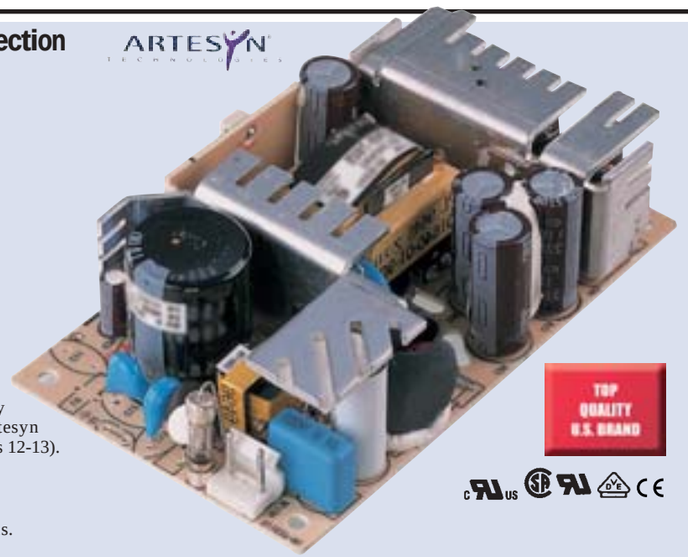
65-Watt Open Frame with Power Factor Correction

NLP65-96 Series: Single & Triple Outputs

- 100% full-load burn-in
- No minimum load required
- 75 watts with 20 CFM of air
- 1U Package: 5" x 3" x 1.3"
- Universal AC input
- 3.9 watts/in³ maximum
- Two-year warranty
- Power Factor Correction
- Mating connectors: P/Ns 104432CF & 104731CF, pg 129
- 0˚ to +70˚C working temperature (see output derating)

Detailed in blue below, the Artesyn NLP65 series are on a 5" x 3" card with maximum component height of 1.26" – one of the smallest in the industry and perfect for 1U applications. With just 20 CFM of air, the power can be boosted 15% to 75 watts from the free-air power of 65 watts. The NLP65 series, with full international safety approvals, and the CE mark, meets conducted and radiated emissions EN55022; and complies to EN61000-4-2/3/4/5/6 immunity standards. The Artesyn NLP65-96 models provide input harmonic current correction (Power Factor Correction) to satisfy EN61000-3-2. If Power Factor Correction is not required, the Artesyn NLP65-76 series is also available in the same package (see pages 12-13).

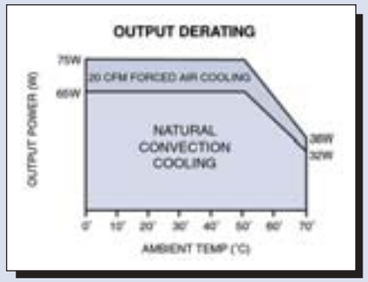
The NLP65 is designed for use in low power data networking, computer and telecom applications such as hubs, routers POS terminals, internet servers, cable modems and PBXs; as well as many industrial applications.

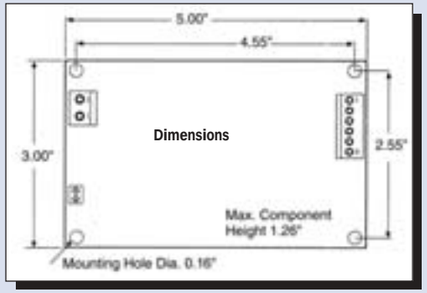


TOP QUALITY U.S. BRAND

UNDERSTANDING POWER SUPPLIES #6

P.F.C. POWER FACTOR CORRECTION: Standard AC/DC converters draw line current in pulses around the peaks in line voltage. This may be undesirable for several reasons. PFC circuits ensure that the line current is drawn sinusoidally and in phase with the sinusoidal line voltage.





75-Watt Enclosed with Power Factor Correction

SP-75 Series: Single Output

- 100% full-load burn-in
- No minimum load required
- 105˚C output capacitor
- Power Factor Correction
- Mating connectors: P/N 103587CF, pg 123
- -10˚C to +60˚C working temperature (see output derating)
- Mounting hardware: use P/N 222148CF, 222156CF, 222164CF & 222172CF; see www.Jameco.com for specifications
- Universal AC input
- 2.1 watts/in³ maximum
- Three-year warranty

Highlighted in tan below, the Mean Well SP-75 series features input Power Factor Correction that meets EN61000-3-2, required in Europe for power supplies 75 watts and above. They are approved by UL and TUV, and carry the CE mark for use worldwide. The high-density enclosed packaging results in a profile of only 1.3" and a power density of 2.1 watts per inch³. As with all Mean Well power products, every SP-75 product is subjected to 100% full-load burn-in testing. This rigorous production procedure detects infant product failures, contributing to Mean Well's world-class reliability. Protection includes short-circuit, overload and over-voltage.

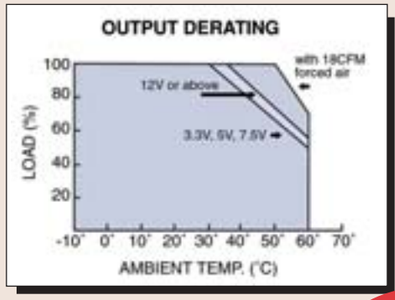


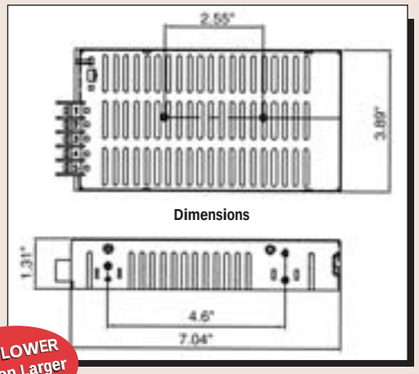
PERFORMANCE AT VALUE PRICES

UNDERSTANDING POWER SUPPLIES #7 & 8

THERMAL PROTECTION: An internal safeguard circuit in a power supply which shuts down the unit in the event of excess internal temperature.

SHORT-CIRCUIT PROTECTION: A feature which limits the output current of a power supply under short-circuit conditions so that the supply will not be damaged.





Call for LOWER PRICES on Larger Quantities

	Jameco Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Output Power	Input (VAC @ Hz)	PFC	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25	
Open Frame	218595CF	Artesyn	NLP65-9612	+12V@0-5.4A	64.8W	85-264@47-63	✓	5.00x3.00x1.26	4.55x2.55x0.16	3.32	120	2.0	⟷	2.0	17	3,000	0.7	1000	16	5-500Hz, 2.4G	—	72	0.6	UL/CUL/CSA/VDE/CE	218595CF	$74.95	$67.49	$60.75	Open Frame
	218608CF	Artesyn	NLP65-9624	+24V@0-2.7A	64.8W	85-264@47-63	✓	5.00x3.00x1.26	4.55x2.55x0.16	3.32	240	2.0		2.0	17	3,000	0.7	1000	16	5-500Hz, 2.4G	—	72	0.6	UL/CUL/CSA/VDE/CE	218608CF	74.95	67.49	60.75	
	218616CF	Artesyn	NLP65-9608	+5V@0-7.5A; +12V@0-2.5A; -12V@0-0.65A	75.3W	85-264@47-63	✓	5.00x3.00x1.26	4.55x2.55x0.16	3.86	50	2.0		2.0	17	3,000	0.7	1000	16	5-500Hz, 2.4G	—	72	0.6	UL/CUL/CSA/VDE/CE	218616CF	74.95	67.49	60.75	
Enclosed	194829CF	Mean Well	SP75-5	+5V@0-15A	75.0W	85-264@47-63	✓	see diagram	see diagram	2.11	80	1.0		0.5	40	3,000	2.0	60	20	10-500Hz; 2G	10	72	1.2	UL/CUL/TUV/CE	194829CF	75.95	55.49	48.99	Enclosed
	194837CF	Mean Well	SP75-12	+12V@0-6.3A	75.6W	85-264@47-63	✓	see diagram	see diagram	2.13	80	0.5		0.5	40	3,000	2.0	60	20	10-500Hz; 2G	10	77	1.2	UL/CUL/TUV/CE	194837CF	75.95	55.49	48.99	
	194845CF	Mean Well	SP75-15	+15V@0-5A	75.0W	85-264@47-63	✓	see diagram	see diagram	2.11	80	0.5		0.5	40	3,000	2.0	60	20	10-500Hz; 2G	10	79	1.2	UL/CUL/TUV/CE	194845CF	75.95	55.49	48.99	
	194853CF	Mean Well	SP75-24	+24V@0-3.2A	76.8W	85-264@47-63	✓	see diagram	see diagram	2.16	100	0.5	⟷	0.5	40	3,000	2.0	60	20	10-500Hz; 2G	10	80	1.2	UL/CUL/TUV/CE	194853CF	75.95	55.49	48.99	
	216805CF	Mean Well	SP75-48	+48V@0-1.6A	76.8W	85-264@47-63	✓	see diagram	see diagram	2.16	100	0.5		0.5	40	3,000	2.0	60	20	10-500Hz; 2G	10	80	1.2	UL/CUL/TUV/CE	216805CF	75.95	55.49	48.99	

Other Versions Available: Call 800-831-4242

* Primary Output

SALE

Limited Supply – Special Offers – 90-Day Warranty

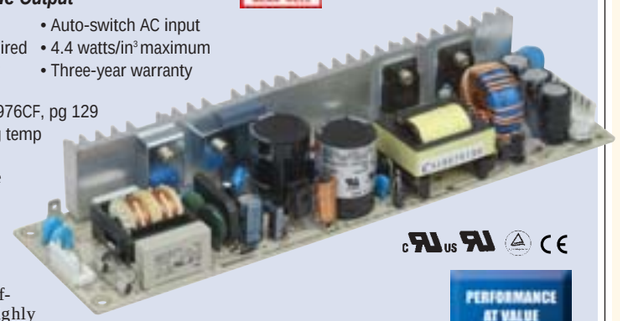
	Jameco Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Output Power	Input (VAC @ Hz)	PFC	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25	
Open Frame	182916CF	Artesyn	NLP70-9693	+3.3@10.5A; +5V@10.5A; +12V@0.65A	70.0W	100-240@50-60	✓	5.5x3.0x1.3	4.6x2.6x0.16	3.26	—	2.0		2.0	17	3,000	0.7	—	16	5-500Hz; 2.4G	—	70	0.8	UL/CSA/VDE/CE	182916CF	$3.95	$3.55	$3.25	Open Frame
	171731CF	Delta	DPS-60MPB	+3.3V@0.8-8A; +5V@1-9A; +12V@0-1A; -12V@0-0.2A	65.0W	90-270@47-63	—	5.8x3.3x1.4	—	2.24	50	2.0	⟷	2.0	40	—	2.0	100	16	—	—	65	1.0	UL/CUL/TUV	171731CF	7.95	6.79	5.09	
	189966CF	Autec	UPS61-1004-T	+3.3V@4A; +5V@2A; +12V@3A; +32V@0.5A	65.0W	115/230@50-60	—	5.0x3.5x1.8	—	1.90	—	—		—	—	—	—	—	—	—	—	—	0.8	CSA/CE	189966CF	3.69	3.29	2.95	
Enclosed	203529CF	ETA	WRC48SX-U	+48V@1.6A	75.0W	85-264@47-440	—	6.9x3.7x1.5	—	1.95	480	0.9		0.8	20	3,000	—	800	15	10-50Hz; 2G	10	85	1.4	UL/CSA/VDE/CE	203529CF	24.95	22.49	22.49	Enclosed
	205840CF	Volgen	PRK70U-1515	+5V@5A; +15V@2A; -15V@1A	70.0W	100/120@50-60	—	8.7x4.1x2.8	6.9x3.4x0.08	0.70	80	0.8		0.4	35	1,500	0.5	100	20	10-55Hz; 20G	5	73	1.0	UL/CSA	205840CF	$49.95 24.95	22.49	20.25	
	205698CF	Volgen	ESK80U-1515	+5V@10A; +15V@0.8A; -15V@0.8A	74.0W	115/220@50-60	—	8.7x5.0x1.5	—	1.13	—	—	⟷	—	—	—	—	—	—	—	—	—	1.9	UL/CSA	205698CF	$49.95 24.95	22.49	20.25	
	205858CF	Volgen	JRK-115B	+5V@4.5A; +15V@3.5A; +24V@0.4A; -5V@1.6A; -15V@1.5A	75.0W	100/240@50-60	—	10.5x5.0x2.5	—	0.36	—	—		—	—	—	—	—	—	—	—	—	2.4	—	205858CF	$49.95 24.95	22.49	20.25	

* Primary Output

100-Watt Open Frame

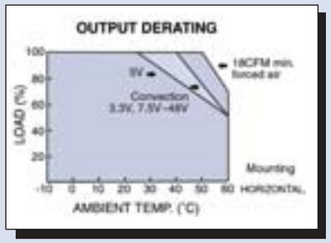
LPS-100 Series: Single Output

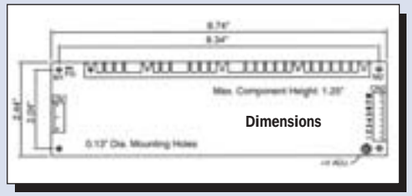
- 100% full-load burn-in
- No minimum load required
- 105˚C output capacitor
- Mating connectors: P/Ns 215950CF & 215976CF, pg 129
- -10˚C to +60˚C working temp (see output derating)
- Auto-switch AC input
- 4.4 watts/in³ maximum
- Three-year warranty



PERFORMANCE AT VALUE PRICES

Detailed below in blue is one of Mean Well's premium series that carries an unusually long 3-year warranty. The LPS-100 benefits from a modern state-of-the-art design using highly integrated components. Assured to operate correctly anywhere in the world, these open-frame switchers feature universal voltage input ranges of 85-264VAC and 120-370VDC. The highly compact layout results in an impressive power density of 3.4 watts per inch³ and a maximum height of 1.3". These products are approved by UL, CUL and TUV; and carry the CE mark for use worldwide. EMC standards met are EN55022 (CISPR22) Class B and IEC1000-2/3/4.





100-Watt Open Frame

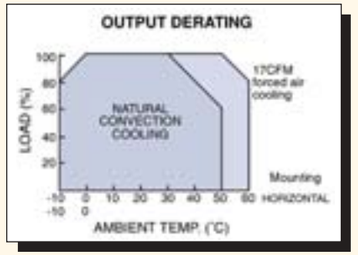
PQ-100 Series: Quad Outputs

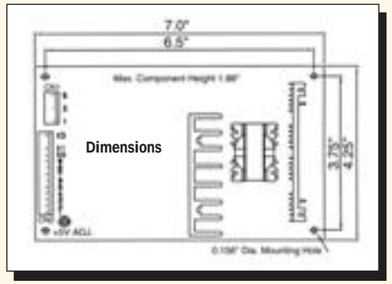
- 100% full-load burn-in
- 105˚C output capacitor
- Two-year warranty
- Mating connectors: P/Ns 104723CF, 104766CF & 104432CF pg 129
- -10˚C to +60˚C working temp (see output derating)
- Universal AC input
- 1.9 watts/in³ max.

Shown below in buff color, this impressive series of quad-output 100-watt switchers features universal input voltage ranges of 90-264VAC and 127-370VDC. The solid, reliable, low cost design features overload protection to 140% of rated load with auto-recovery, and over-voltage protection to 135% of rated output voltage. Additional protection includes short-circuit and a soft-start circuit that limits the AC surge current to a safe value. With free-air convection the 100-watt rated power is available from -10˚C to 50˚C ambient temperature, and 60˚C with fan cooling. Withstand voltage is 3kVAC for input/output & 1.5kVAC input/ground.



PERFORMANCE AT VALUE PRICES





100-Watt Enclosed

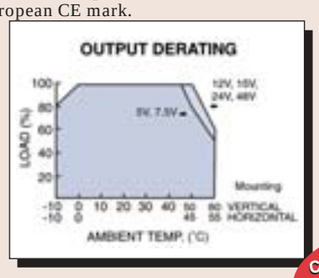
S-100F Series: Single Output

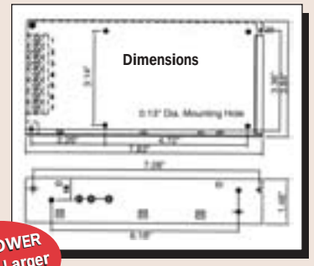
- 100% full-load burn-in
- No minimum load required
- 105˚C output capacitor
- Mating connectors: 103587CF, pg 123
- -10˚C to +60˚C working temp. (see output derating)
- Mounting hardware: use P/Ns 222130CF, 222156CF & 222172CF; see www.Jameco.com for specifications
- 2.3 watts/in³ maximum
- Two-year warranty



PERFORMANCE AT VALUE PRICES

Highlighted below in tan and surprisingly inexpensive for its capabilities, the S-100F series is one of Mean Well's most successful enclosed power supplies. With only free-air convection, the 100-watt rated power is available from 0˚C to 50˚C ambient temperature. These switchers derive their impressive reliability from a conservative design, the exclusive use of high-quality components, and 100% full-load burn-in. Protection includes short-circuit, overload and over-voltage. A novel soft-start circuit limits the AC surge current to a safe value. Guaranteed safety standards comprise UL1012, UL1950 and TUV EN60950; and these products have earned the European CE mark.





Call for LOWER PRICES on Larger Quantities

	Jameco Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Output Power	Input (VAC @ Hz)	PFC	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25	
Open Frame	213591CF	Mean Well	LPS100-5	+5V@0-20A	100.0W	88-264@47-63	—	8.74x2.44x1.25	8.34x2.04x0.13	4.35	100	1.5		0.5	30	3,000	1.0	50	20	10-500Hz: 2G	10	77	0.8	UL/CUL/TUV/CE	213591CF	$53.95	$43.99	$38.99	Open Frame
	173471CF	Mean Well	LPS100-12	+12V@0-8.4A	100.8W	88-264@47-63	—	8.74x2.44x1.25	8.34x2.04x0.13	4.39	100	1.5		0.5	30	3,000	1.0	50	20	10-500Hz: 2G	10	79	0.8	UL/CUL/TUV/CE	173471CF	53.95	43.99	38.99	
	216717CF	Mean Well	LPS100-15	+15V@0-6.7A	100.5W	88-264@47-63	—	8.74x2.44x1.25	8.34x2.04x0.13	4.38	100	1.5		0.5	30	3,000	1.0	50	20	10-500Hz: 2G	10	80	0.8	UL/CUL/TUV/CE	216717CF	53.95	43.99	38.99	
	173462CF	Mean Well	LPS100-24	+24V@0-4.2A	100.8W	88-264@47-63	—	8.74x2.44x1.25	8.34x2.04x0.13	4.39	150	0.5	⟷	0.5	30	3,000	1.0	50	20	10-500Hz: 2G	10	80	0.8	UL/CUL/TUV/CE	173462CF	53.95	43.99	38.99	
	216709CF	Mean Well	LPS100-48	+48V@0-2.1A	100.8W	88-264@47-63	—	8.74x2.44x1.25	8.34x2.04x0.13	4.39	200	0.5		0.5	30	3,000	1.0	50	20	10-500Hz: 2G	10	81	0.8	UL/CUL/TUV/CE	216709CF	53.95	43.99	38.99	
	217306CF	Mean Well	PQ-100B	+5V@2-10A; +12V@0.5-3.5A; -5V@0-0.5A; -12V@0-0.5A	100.5W	100-264@47-63	—	7.00x4.25x1.88	6.50x3.75x0.156	1.89	80	2.0		1.0	50	3,000	1.0	50	20	10-500Hz: 2G	10	72	1.1	UL/CUL/TUV/CE	217306CF	69.95	48.99	46.99	
	217293CF	Mean Well	PQ-100D	+5V@2-5A; +12V@0.5-2A; +24V@0.4-2A; -12V@0-0.5A	103.0W	100-264@47-63	—	7.00x4.25x1.88	6.50x3.75x0.156	1.80	80	1.0		1.0	50	3,000	1.0	50	20	10-500Hz: 2G	10	77	1.1	UL/CUL/TUV/CE	217293CF	69.95	48.99	46.99	
Enclosed	201961CF	Mean Well	S-100F-5	+5V@0-20A	100.0W	88-132/176-264@47-63	—	see diagram	see diagram	2.19	100	1.0		0.5	30	3,000	1.0	30	15	10-500Hz: 2G	10	76	1.4	UL/TUV/CE	201961CF	71.95	42.99	36.99	Enclosed
	123385CF	Mean Well	S-100F-12	+12V@0-8.5A	102.0W	88-132/176-264@47-63	—	see diagram	see diagram	2.24	125	0.5	⟷	0.5	30	3,000	1.0	30	15	10-500Hz: 2G	10	80	1.4	UL/TUV/CE	123385CF	71.95	42.99	36.99	
	212450CF	Mean Well	S-100F-15	+15V@0-6.7A	100.5W	88-132/176-264@47-63	—	see diagram	see diagram	2.20	125	0.5		0.5	30	3,000	1.0	30	15	10-500Hz: 2G	10	81	1.4	UL/TUV/CE	212450CF	71.95	42.99	36.99	
	201970CF	Mean Well	S-100F-24	+24V@0-4.5A	108.0W	88-132/176-264@47-63	—	see diagram	see diagram	2.37	150	0.5		0.5	30	3,000	1.0	30	15	10-500Hz: 2G	10	83	1.4	UL/TUV/CE	201970CF	71.95	42.99	36.99	
	216792CF	Mean Well	S-100F-48	+48V@0-2.2A	105.6W	88-132/176-264@47-63	—	see diagram	see diagram	2.31	150	0.5		0.5	30	3,000	1.0	30	15	10-500Hz: 2G	10	84	1.4	UL/TUV/CE	216792CF	71.95	42.99	36.99	

Other Versions Available: Call 800-831-4242

* Primary Output

SALE

Limited Supply – Special Offers – 90-Day Warranty

	Jameco Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Output Power	Input (VAC @ Hz)	PFC	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25	
Open Frame	190676CF	Astec	LPS112	+5V@0-16A	80.0W	100-250@50-60	—	7.0x4.0x1.7	6.5x3.5x0.16	1.68	50	—		—	18	—	0.5	—	20	5-500Hz; 0.75G	5	70	1.2	UL/CSA/VDE/CE	190676CF	$19.95 $6.95	$6.29	$5.69	Open Frame
	208750CF	Digital Power	USS100-245	+5V@20A	100.0W	90-250@50-60	—	5.0x3.2x1.5	2.7x2.7x0.08	4.17	100	3.0	⟷	0.2	25	—	—	—	6	5-500Hz; 0.75G	—	75	0.8	UL/CUL/CSA/TUV/CE	208750CF	$39.95 29.95	26.99	24.29	
	203326CF	EOS	VLT100-1004	48V@0.2-2.1A	100.0W	100-240@50-60	✓	5.0x3.0x1.0	4.6x2.6x0.16	6.67	480	3.0		0.3	35	—	—	50	10	—	—	85	0.5	UL/CUL/VDE/CE	203326CF	27.95	24.95	22.49	
	196251CF	Lambda	PW-G-00790	+3.3V@15A; +5V@7A	85.0W	100-240@50-60	—	8.0x3.5x1.3	—	2.34	—	—		—	—	—	—	—	—	—	—	—	1.2	UL/CSA/TUV/CE	196251CF	$5.95 3.39	3.09	2.85	
	157913CF	Digital Power	US100-313	+3.3V@6A; +5V@12A; +12V@0.8A	90.0W	90-250@47-63	—	6.0x4.0x1.0	2.7x2.7x0.12	3.75	100	3.0		0.2	25	—	—	—	6	5-500Hz; 0.75G	—	75	1.0	UL/CUL/CSA/TUV/CE	157913CF	$19.95 13.65	12.39	11.25	
	202876CF	Power-One	MAP80-4003	+5V@14A; +15V@3.5A; -5V@1A; -15V@1A	80.0W	100/230@47-63	—	7.2x4.3x1.8	6.7x3.2x0.17	1.44	50	1.0	⟷	0.2	45	2,600	0.5	20	20	10-2kHz; 6G	—	75	2.0	UL/CSA/TUV/CE	202876CF	24.95	23.69	21.29	
Enclosed	223992CF	Volgen	SP100U-24S	+24V@4.5A	108.0W	100-230@50-60	✓	7.7x4.4x1.5	—	2.12	150	0.8		0.4	—	3,000	0.75	1300	50	—	10	86	1.9	UL/CUL/TUV/CE	223992CF	31.95	28.75	25.89	Enclosed

* Primary Output

Color Code Legend: New Sale Qty Save

New Lower Prices Marked in Red

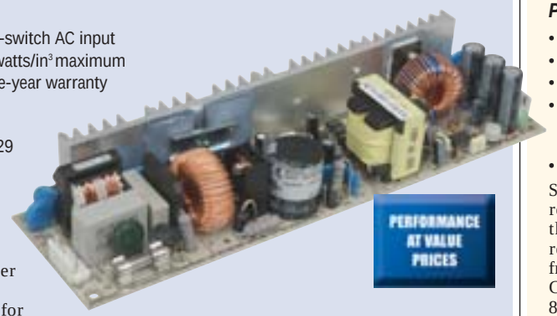
75 to 100-Watt Switching DC Power Supplies (Continued)

Power

100-Watt Open Frame With Power Factor Correction

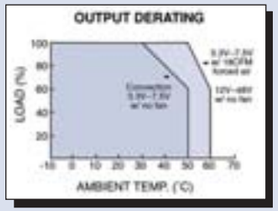
LPP-100 Series: Single Output

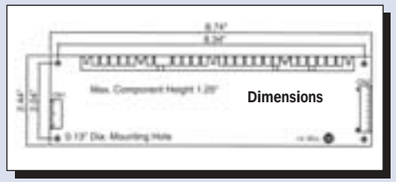
- 100% full-load burn-in
- No minimum load required
- 105˚C output capacitor
- Power Factor Correction
- Mating connectors: P/Ns 215950CF & 215976CF, pg 129
- -10˚C to +60˚C working temp (see output derating)
- Auto-switch AC input
- 4.4 watts/in³ maximum
- Three-year warranty



PERFORMANCE AT VALUE PRICES

Detailed below in blue, one of Mean Well's newest and most modern designs, the open-frame LPP100 series features input Power Factor Correction that meets EN61000-3-2, required in Europe for power supplies 75 watts and above. Couple this with their full range universal input ranges of 85-264VAC and 120-370VDC, and these switchers are ready for use worldwide. Meeting the requirements of UL1950 and TUV EN60950, these products are approved by UL, CUL, and TUV; and carry the CE mark, for use worldwide. EMC standards met are EN55022 Class B and EN61000-4-2/3/4/5/6/8/11. The highly compact layout results in an impressive power density of 3.4 watts per inch³ and maximum height of 1.3".



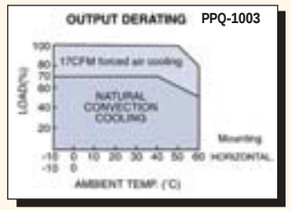


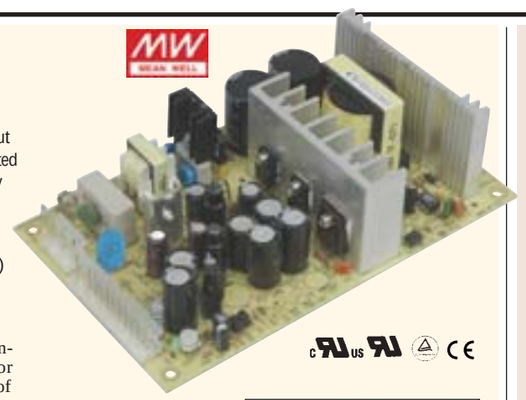
100-Watt Open Frame with Power Factor Correction

PPQ-1003 & PPQ-100 Series: Quad Outputs

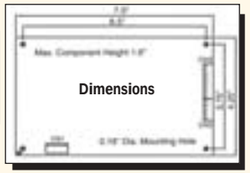
- 100% full-load burn-in
- 2.3 watts/in³ maximum
- 105˚C output capacitor
- Mating connectors: PPQ1003-P/Ns 104766CF & two 104432CF, pg 129; PPQ100-P/Ns 104715CF & two 104723CF, pg 129;
- -10˚C to +60˚C working temp (see output derating)
- Auto-switch AC input
- Power Factor Corrected
- Three-year warranty

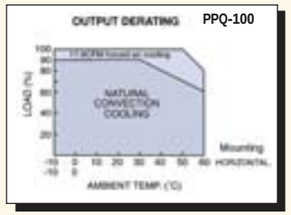
Shown below in buff color, for applications requiring 3.3VDC and a total of four outputs, these series offer excellent performance, high reliability and surprisingly low cost. These open-frame switchers include both input Power Factor Correction and universal input voltage ranges of 85-264VAC and 120-370VDC. Full 100-watt output power is available from -10˚C to 50˚C with 17CFM of forced air cooling, and 80 watts is available to 60˚C. Protection includes short-circuit, overload and over-voltage; and a novel soft-start circuit limits the AC surge current to a safe value. Guaranteed safety standards comprise UL1950 and TUV EN60950, and these products have earned the European CE mark.





PERFORMANCE AT VALUE PRICES

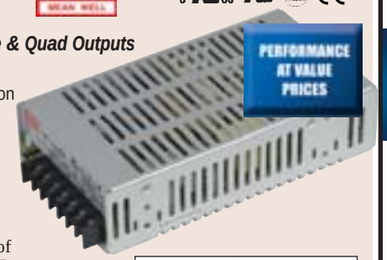




100-Watt Enclosed With Power Factor Correction

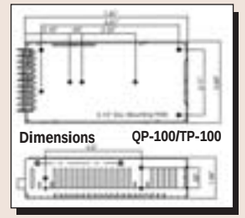
SP-100, TP-100 & QP-100 Series: Single, Triple & Quad Outputs

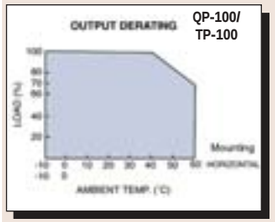
- 100% full-load burn-in
- 2.3 watts/in³ maximum
- 105˚C output capacitor
- Mating connectors: 103587CF, pg 123
- -10˚C to +60˚C working temp. (see output derating)
- Mounting hardware use P/N 222130CF, 222164CF, 222156CF, 222172CF & 222181CF; see www.Jameco.com for specifications
- Universal AC input
- Power Factor Correction
- Three-year warranty

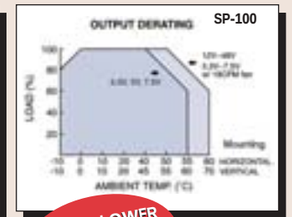


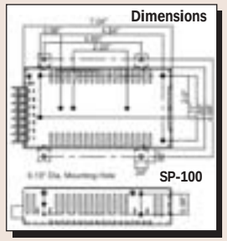
PERFORMANCE AT VALUE PRICES

Highlighted below in tan, this Mean Well family of 100-watt enclosed switchers feature input Power Factor Correction of 0.98 at 115VAC that complies with EN61000-3-2, required in Europe for power supplies 75 watts and above. They are approved by UL and TUV, and carry the CE mark, for use worldwide. The high-density enclosed packaging results in a profile of only 1.8" and a power density of 2.0 watts per inch³. As with all Mean Well products, all SP-100, TP-100 and QP-100 products are subject to 100% full-load burn-in testing. This rigorous production procedure detects infant product failures, contributing to Mean Well's world-class reliability. Protection includes short-circuit, overload and over-voltage.









Call for LOWER PRICES on Larger Quantities

	Jameco Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Output Power	Input (VAC @ Hz)	PFC	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25	
Open Frame	216696CF	Mean Well	LPP-100-5	+5V@0-20A	100.0W	85-264@47-63	✓	8.74x2.44x1.25	8.34x2.04x0.13	3.42	100	1.0		0.5	40	3,000	2.0	30	20	10-500Hz: 2G	10	75	0.8	UL/CUL/TUV/CE	216696CF	$65.95	$50.99	$44.99	Open Frame
	216688CF	Mean Well	LPP-100-12	+12V@0-8.5A	102.0W	85-264@47-63	✓	8.74x2.44x1.25	8.34x2.04x0.13	3.49	100	0.5		0.5	40	3,000	2.0	30	20	10-500Hz: 2G	10	79	0.8	UL/CUL/TUV/CE	216688CF	65.95	50.99	44.99	
	216670CF	Mean Well	LPP-100-15	+15V@0-6.7A	100.5W	85-264@47-63	✓	8.74x2.44x1.25	8.34x2.04x0.13	4.38	100	0.5		0.5	40	3,000	2.0	30	20	10-500Hz: 2G	10	80	0.8	UL/CUL/TUV/CE	216670CF	65.95	50.99	44.99	
	204610CF	Mean Well	LPP-100-24	+24V@0-4.2A	100.8W	85-264@47-63	✓	8.74x2.44x1.25	8.34x2.04x0.13	3.45	150	0.5	⟷	0.5	40	3,000	2.0	30	20	10-500Hz: 2G	10	83	0.8	UL/CUL/TUV/CE	204610CF	65.95	50.99	44.99	
	216653CF	Mean Well	LPP-100-48	+48V@0-2.1A	100.8W	85-264@47-63	✓	8.74x2.44x1.25	8.34x2.04x0.13	3.45	250	0.5		0.5	40	3,000	2.0	30	20	10-500Hz: 2G	10	83	0.8	UL/CUL/TUV/CE	216653CF	65.95	50.99	44.99	
	213815CF	Mean Well	PPQ-1003B	+3.3V@0-10A; +5V@2-10A; +12V@0.2-2A; -12V@0-0.3A	110.6W	90-264@47-63	✓	7.00x4.25x1.60	6.50x3.75x0.16	2.30	100	2.0		1.0	40	3,000	1.0	50	16	10-500Hz: 2G	10	72	1.1	UL/CUL/TUV/CE	213815CF	87.95	65.39	62.89	
	213807CF	Mean Well	PPQ-1003D	+3.3V@0-10A; +5V@2-10A; +12V@0.2-2A; +24V@0-0.3A	114.2W	90-264@47-63	✓	7.00x4.25x1.60	6.50x3.75x0.16	2.37	100	2.0		1.0	40	3,000	1.0	50	16	10-500Hz: 2G	10	72	1.1	UL/CUL/TUV/CE	213807CF	87.95	65.39	62.89	
	217277CF	Mean Well	PPQ-100B	+5V@2-10A; +12V@0.3-3.4A; -12V@0-0.6A; -5V@0-0.6A	101.0W	90-264@47-63	✓	7.00x4.25x1.60	6.50x3.75x0.16	2.10	100	2.0		1.0	40	3,000	3.5	50	16	10-500Hz: 2G	10	75	1.1	UL/CUL/TUV/CE	217277CF	87.95	65.39	62.89	
	217285CF	Mean Well	PPQ-100D	+5V@2-8; +24V@0.3-2A; +12V@0-0.6A; -12V@0-0.6A	102.4W	90-264@47-63	✓	7.00x4.25x1.60	6.50x3.75x0.16	2.13	100	2.0		1.0	40	3,000	3.5	50	16	10-500Hz: 2G	10	78	1.1	UL/CUL/TUV/CE	217285CF	87.95	65.39	62.89	
Enclosed	212441CF	Mean Well	SP100-3.3	+3.3V@0-20A	66.0W	86-264@47-63	✓	see diagram	see diagram	1.48	100	1.0		0.5	40	3,000	2.0	30	20	10-500Hz: 2G	10	70	1.3	UL/CUL/TUV/CE	212441CF	$81.95 69.95	62.99	56.69	Enclosed
	194790CF	Mean Well	SP100-5	+5V@0-20A	100.0W	86-264@47-63	✓	see diagram	see diagram	2.24	100	1.0		0.5	40	3,000	2.0	30	20	10-500Hz: 2G	10	76	1.3	UL/CUL/TUV/CE	194790CF	87.95	60.99	52.99	
	194802CF	Mean Well	SP100-12	+12V@0-8.5A	102.0W	86-264@47-63	✓	see diagram	see diagram	2.29	100	0.5		0.5	40	3,000	2.0	30	20	10-500Hz: 2G	10	80	1.3	UL/CUL/TUV/CE	194802CF	87.95	60.99	52.99	
	212433CF	Mean Well	SP100-15	+15V@0-6.7A	100.5W	86-264@47-63	✓	see diagram	see diagram	2.25	100	0.5		0.5	40	3,000	2.0	30	20	10-500Hz: 2G	10	82	1.3	UL/CUL/TUV/CE	212433CF	$81.95 69.95	62.99	56.69	
	194811CF	Mean Well	SP100-24	+24V@0-4.2A	100.8W	86-264@47-63	✓	see diagram	see diagram	2.26	150	0.5		0.5	40	3,000	2.0	30	20	10-500Hz: 2G	10	84	1.3	UL/CUL/TUV/CE	194811CF	87.95	60.99	52.99	
	212425CF	Mean Well	SP100-48	+48V@0-2.1A	100.8W	88-264@47-63	✓	see diagram	see diagram	2.26	250	0.5		0.1	40	3,000	2.0	30	20	10-500Hz: 2G	10	82	1.3	UL/CUL/TUV/CE	212425CF	87.95	60.99	52.99	
	213794CF	Mean Well	TP-100A	+5V@3-10A; +12V@0.4-4A; -5V@0-0.6A	101.0W	90-264@47-63	✓	see diagram	see diagram	1.85	100	3.0		1.0	40	3,000	3.5	60	20	10-500Hz: 2G	10	75	1.6	UL/CUL/TUV/CE	213794CF	$134.95 118.95	93.99	84.99	
	213786CF	Mean Well	TP-100B	+5V@3-10A; +12V@0.4-4A; -12V@0-0.6A	105.2W	90-264@47-63	✓	see diagram	see diagram	1.93	100	3.0		1.0	40	3,000	3.5	60	20	10-500Hz: 2G	10	78	1.6	UL/CUL/TUV/CE	213786CF	$134.95 118.95	93.99	84.99	
	213778CF	Mean Well	TP-100C	+5V@3-10A; +15V@0.4-3A; -15V@0-0.6A	104.0W	90-264@47-63	✓	see diagram	see diagram	1.90	100	3.0		1.0	40	3,000	3.5	60	20	10-500Hz: 2G	10	77	1.6	UL/CUL/TUV/CE	213778CF	$134.95 118.95	93.99	84.99	
	213760CF	Mean Well	TP-100D	+5V@3-10A; +24V@0.3-2A; +12V@0-0.6A	105.2W	90-264@47-63	✓	see diagram	see diagram	1.93	100	3.0		1.0	40	3,000	3.5	60	20	10-500Hz: 2G	10	78	1.6	UL/CUL/TUV/CE	213760CF	$134.95 118.95	93.99	84.99	
	213639CF	Mean Well	QP-100-3B	+3.3V@0-8A; +5V@2-8A; +12V@0.3-2.2A; -12V@0-0.6A	100.0W	90-264@47-63	✓	see diagram	see diagram	1.64	100	2.0		1.0	40	3,000	3.5	50	16	10-500Hz: 2G	10	74	1.6	UL/CUL/TUV/CE	213639CF	$149.95 133.95	105.99	93.99	
	213621CF	Mean Well	QP-100-D	+5V@2-8A; +12V@0-2.4A; +24V@0.3-1A; -12V@0-0.6A	100.0W	90-264@47-63	✓	see diagram	see diagram	1.64	120	2.0	⟷	1.0	40	3,000	3.5	50	16	10-500Hz: 2G	10	78	1.6	UL/CUL/TUV/CE	213621CF	$149.95 133.95	105.99	93.99	
	213612CF	Mean Well	QP-100F	+5V@2-8A; +15V@0-2A; +24V@0.3-1A; -15V@0-0.6A	103.0W	90-264@47-63	✓	see diagram	see diagram	1.69	120	2.0		1.0	40	3,000	3.5	50	16	10-500Hz: 2G	10	78	1.6	UL/CUL/TUV/CE	213612CF	$149.95 133.95	105.99	93.99	

Other Versions Available: Call 800-831-4242

* Primary Output

100 to 120-Watt Switching DC Power Supplies

110-Watt Open Frame

ARTESYN TECHNOLOGIES

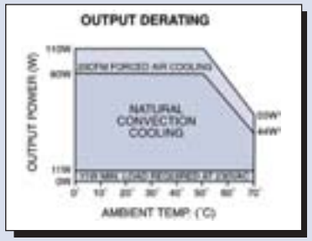
NFS110-76 Series: Single & Quad Outputs

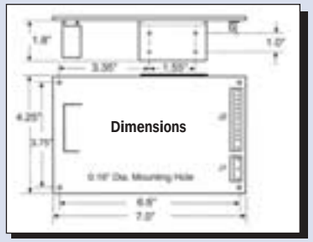
- 100% full-load burn-in
- Universal AC input
- 110W with 20 CFM of air
- 2.8 watts/in³ maximum
- 1U Package: 7" x 4.25" x 1.8"
- Two-year warranty
- Mating connectors: P/Ns 104723CF, 104766CF & 104432CF, pg 129
- 0˚C to +70˚C working temp. (see output derating)

TOP QUALITY U.S. BRAND



Detailed below in blue, the Artesyn NFS110 series are 110 watt universal-input power supplies on a 7" x 4.25" x 1.8" card. The NFS110-76 models have proven to be highly reliable and versatile for a wide range of communication and industrial applications, with a very high peak current capability on each output for drive and motor applications. The NFS110-76 series is popular in low power data networking, computer, telecom and industrial applications such as servers, thermal printers, storage devices, vending machines and POS equipment.





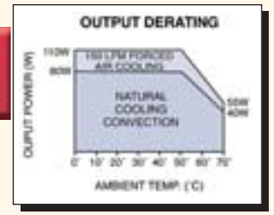
110-Watt Open Frame With Power Factor Correction

NLP110 Series: Single & Triple Outputs

- 100% full-load burn-in
- Universal AC input
- Power Factor Corrected
- 6 watts/in³ maximum
- 105˚C output capacitor
- Two-year warranty
- 1U package: 6.5" x 3" x 1.3"
- 110W with 20 CFM of air
- Mating connectors: P/Ns 104432CF & 2 ea. 104731CF, pg 129
- 0˚C to +70˚C working temp. (see output derating)



TOP QUALITY U.S. BRAND



Shown below in buff color, the Artesyn NLP110 series is Power Factor Corrected to meet EN61000-3-2. The multiple output models can deliver equal amounts of current on multiple low voltage outputs to support designs that still span the industry transition from 5-volt to 3.3-volt logic. The NLP110's high power density results in a package only 1.5" longer than the 65-watt Artesyn NLP-65. The NLP110 series, with full international safety approvals, and the CE mark, meets conducted and radiated emissions EN55022 and complies to EN61000-4-2/3/4/5/6 immunity standards. The NLP110 is primarily designed for networking applications in 1U shelves or boxes that have a heavy logic content such as access concentrators, midrange routers, LAN switchers and shared media hubs.



120-Watt Enclosed

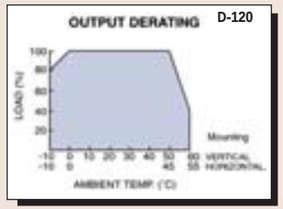
D-120 & Q-120 Series: Dual & Quad Outputs

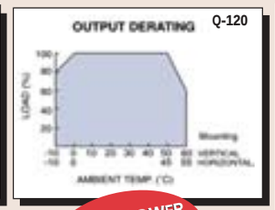
- 100% full-load burn-in
- 1.9 watts/in³ maximum
- 105˚C output capacitor
- Two-year warranty
- Mating connectors: 103587CF, pg 123
- -10˚C to +60˚C working temp. (see output derating)
- Mounting hardware: use P/N 222130CF, 222156CF & 222172CF; see www.Jameco.com for specifications

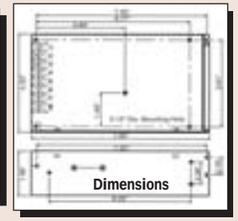


PERFORMANCE AT VALUE PRICES

Highlighted below in tan, the workhorse D-120 and Q-120 have long been amongst the most popular Mean Well series of enclosed switching power supplies. Their efficiency and low working temperature contribute to their very high MTBF of 272,000 hours. Full 120 watts of power is available over the ambient temperature range of 0˚C to 50˚C. With derating (see below) the range extends to -10˚C to 60˚C. The solid, reliable, low-cost design features overload protection to 135% of rated load with auto-recovery, and over-voltage protection to 135% of rated output voltage. Additional protection includes short-circuit and a soft-start circuit that limits the AC surge current to a safe value.







Call for LOWER PRICES on Larger Quantities

	Jameco Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Output Power	Input (VAC @ Hz)	PFC	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25	
Open Frame	218982CF	Artesyn	NFS110-7612	+12V@0-7A	84.0W	85-264@47-440	—	7.0x4.25x1.8	6.6x3.75x0.16	1.67	120	2.0		0.1	35	3,000	0.2	—	17	5-500Hz; 2.4G	3	72	1.2	UL/CUL/CSA/VDE/CE	218982CF	$126.95 $106.95	$96.29	$86.95	Open Frame
	218974CF	Artesyn	NFS110-7624	+24V@0-3.5A	84.0W	85-264@47-440	—	7.0x4.25x1.8	6.6x3.75x0.16	1.67	240	2.0		0.1	35	3,000	0.2	—	17	5-500Hz; 2.4G	3	75	1.2	UL/CUL/CSA/VDE/CE	218974CF	$126.95 $106.95	96.29	86.95	
	218966CF	Artesyn	NFS110-7602P	+5.1V@0-8A; +12V@0-4.5A; -5V@0-0.5A; -12V@0-0.5A	103.3W	85-264@47-440	—	7.0x4.25x1.8	6.6x3.75x0.16	2.60	50	2.0	⟷	0.1	35	3,000	0.2	—	17	5-500Hz; 2.4G	3	70	1.3	UL/CUL/CSA/VDE/CE	218966CF	$126.95 $106.95	96.29	86.95	
	220231CF	Artesyn	NFS110-7604	+5.1V@0-8A; +15V@0-4A; -5V@0-0.5A; -15V@0-0.5A	110.6W	85-264@47-440	—	7.0x4.25x1.8	6.6x3.75x0.16	2.78	50	2.0		0.1	35	3,000	0.2	—	17	5-500Hz; 2.4G	3	70	1.3	UL/CUL/CSA/VDE/CE	220231CF	$126.95 $109.95	98.99	89.09	
	218915CF	Artesyn	NLP110-9605	+5V@0.5-15A	75.0W	90-264@47-63	✓	6.5x3.0x1.26	6.05x2.55x–	2.96	50	2.0		2.0	18	3,000	0.45	1000	16.7	5-500Hz; 2.4G	3	75	0.6	UL/CUL/CSA/VDE	218915CF	107.65	96.65	90.95	
	218923CF	Artesyn	NLP110-9612	+12V@0.3-6.4A	76.8W	90-264@47-63	✓	6.5x3.0x1.26	6.05x2.55x–	3.03	120	2.0		2.0	18	3,000	0.45	1000	16.7	5-500Hz; 2.4G	3	75	0.6	UL/CUL/CSA/VDE	218923CF	107.65	96.65	90.95	
	218931CF	Artesyn	NLP110-9624	+24V@0.2-3.2A	76.8W	90-264@47-63	✓	6.5x3.0x1.26	6.05x2.55x–	3.03	240	2.0		2.0	18	3,000	0.45	1000	16.7	5-500Hz; 2.4G	3	75	0.6	UL/CUL/CSA/VDE	218931CF	107.65	96.65	90.95	
	218940CF	Artesyn	NLP110-9693	+3.3V@0.2-13A; +5V@0.5-13A; +12V@0-0.65A	110.0W	90-264@47-63	✓	6.5x3.0x1.26	6.05x2.55x–	4.56	50	2.0	⟷	2.0	18	3,000	0.45	1000	16.7	5-500Hz; 2.4G	3	75	0.6	UL/CUL/CSA/VDE	218940CF	107.65	96.65	90.95	
	218958CF	Artesyn	NLP110-9608	+5V@0.2-13A; +12V@0.2-6.5A; -12V@0-0.65A	110.0W	90-264@47-63	✓	6.5x3.0x1.26	6.05x2.55x–	5.95	120	2.0		2.0	18	3,000	0.45	1000	16.7	5-500Hz; 2.4G	3	75	0.6	UL/CUL/CSA/VDE	218958CF	107.65	96.65	90.95	
Enclosed	132409CF	Mean Well	D-120A	+5V@2-12A; +12V@0.5-5A	120.0W	88-132/176-264@47-63	—	see diagram	see diagram	1.79	60	0.5		0.5	35	3,000	3.5	50	20	10-500Hz; 2G	10	78	1.9	UL/CUL/TUV/CE	132409CF	76.95	52.99	46.99	Enclosed
	132396CF	Mean Well	D-120B	+5V@2-6A; +24V@0.4-4A	126.0W	88-132/176-264@47-63	—	see diagram	see diagram	1.88	60	0.5		0.5	35	3,000	3.5	50	20	10-500Hz; 2G	10	80	1.9	UL/CUL/TUV/CE	132396CF	76.95	52.99	46.99	
	132388CF	Mean Well	Q-120B	+5V@2-11A; -5V@0.2-1A; 12V@0.5-4A; -12V@0.2-1A	120.0W	88-132/176-264@47-63	—	see diagram	see diagram	1.79	80	0.5	⟷	0.5	35	3,000	3.5	50	20	10-500Hz; 2G	10	77	1.9	UL/CUL/TUV/CE	132388CF	82.95	57.99	50.99	
	132370CF	Mean Well	Q-120D	+5V@2-8A; +24V@0.2-2A; +12V@0.2-2A; -12V@0.2-1A	124.0W	88-132/176-264@47-63	—	see diagram	see diagram	1.85	80	0.5		0.5	35	3,000	3.5	50	20	10-500Hz; 2G	10	80	1.9	UL/CUL/TUV/CE	132370CF	82.95	57.99	50.99	

Other Versions Available: Call 800-831-4242

* Primary Output

Limited Supply – Special Offers – 90-Day Warranty

	Jameco Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Output Power	Input (VAC @ Hz)	PFC	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25	
Open Frame	190422CF	Astec	AA20140	+5V@1-20A; +12V@0.2-2A	120.0W	100-240@50-60	✓	7.0x4.2x1.5	6.5x3.8x0.17	2.72	50	—		—	40	—	2.0	—	15	32-2kHz; 1G	5	65	1.1	UL/CSA/VDE	190422CF	$11.95 $6.39	$5.85	$5.29	Open Frame
	211297CF	Power-One	MAP110-4300	+3.3V@15A; +5V@8A; +12V@1A; -12V@1A	110.0W	85-264@47-63	—	7.0x4.3x2.0	6.5x2.8x0.17	1.83	30	0.7		0.3	41	2,600	0.75	20	—	—	10	75	1.6	UL/CUL/TUV/CE	211297CF	29.95	22.49	15.75	
	202868CF	Power-One	MAP110-4000P	+5V@12A; +12V@5A; -5V@1A; -12V@1A	110.0W	85-264@47-63	—	7.0x4.3x1.9	6.5x3.8x0.17	1.92	50	0.5		0.2	41	2,600	0.75	20	20	—	—	75	1.6	UL/CSA/TUV/CE	202868CF	$49.95 24.95	22.49	20.25	
	204505CF	IPD Power	SRW-115-4001	+5V@12A; +12V@4A; -5V@4A; -12V@2A	115.0W	85-264@47-63	—	7.0x4.3x1.2	6.0x3.8x0.16	3.18	—	1.0	⟷	—	40	4,250	—	1000	16	—	10	72	1.3	UL/CUL/TUV/CE	204505CF	$49.95 24.95	22.49	19.69	
	204450CF	IPD Power	SRW-115-4001-48	+5V@15A; +12V@1A; -5V@3A; -48V@1A	115.0W	85-264@47-63	—	7.0x4.3x1.2	6.0x3.8x0.16	3.18	—	1.0		—	40	4,250	—	1000	16	—	10	72	1.3	UL/CUL/TUV/CE	204450CF	$49.95 24.95	22.49	20.25	
Enclosed	205786CF	Volgen	EXU-482R2	+48V@2.2A	105.0W	100/120@50-60	—	6.9x3.7x1.8	4.6x3.2x0.12	2.28	—	0.8		0.4	30	2,000	0.5	200	—	10-55Hz: 20G	10	86	0.6	UL	205786CF	$54.95 26.95	24.29	21.85	Enclosed

* Primary Output

Color Code Legend: New | Sale | Qty Save | Closeout

New Lower Prices Marked in Red

120 to 150-Watt Switching DC Power Supplies

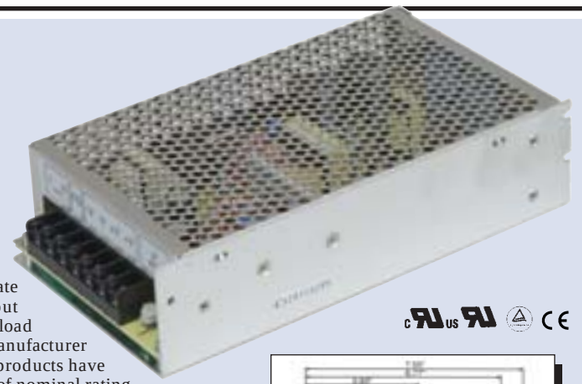
Power

150-Watt Enclosed

S-150 Series: Single Output

- 100% full-load burn-in
- 2.3 watts/in³ maximum
- No minimum load required
- Two-year warranty
- 105˚C output capacitor
- Mating connectors: P/N 103587CF, pg 123
- -10˚ to +60˚C working temperature (see output derating)
- Mounting hardware: use P/N 222130CF, 222156CF & 222172CF; see www.Jameco.com for specifications

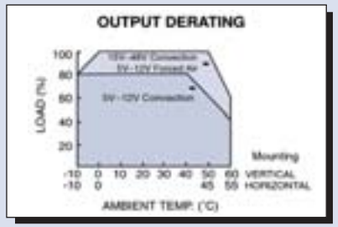
PERFORMANCE AT VALUE PRICES

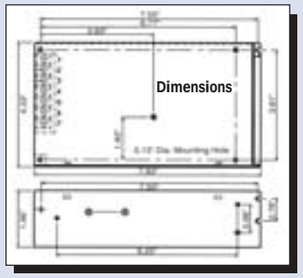


Highlighted in blue below, the highly popular S-150 series from Mean Well derives its impressive reliability from a conservative design, the exclusive use of high-quality components, and 100% full-load burn-in. Assured to operate correctly anywhere in the world, these switchers feature universal voltage input ranges of 85-264VAC and 120-370VDC. Protection includes short-circuit, overload and over-voltage; and a novel soft-start circuit limits the AC surge current. Manufacturer guaranteed safety standards comprise UL1950 and TUV EN60950, and these products have earned the European CE mark. The DC output voltage can be adjusted ±10% of nominal rating.

UNDERSTANDING POWER SUPPLIES #9

LOAD REGULATION: The percent change in output voltage as the load is changed from minimum to maximum, at constant temperature. The load change may be specified for other than no load to full load, such as 20% load to full load.



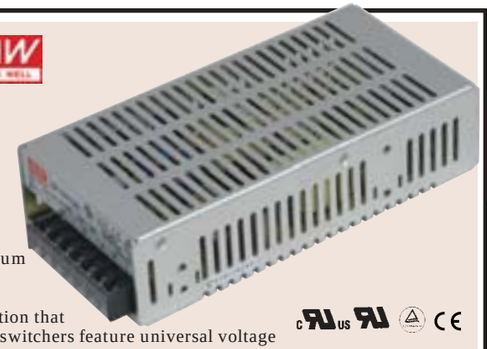


150-Watt Enclosed with Power Factor Correction

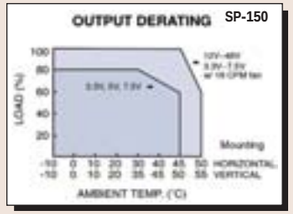
SP-150, TP-150 & QP-150 Series: Single, Triple & Quad Outputs

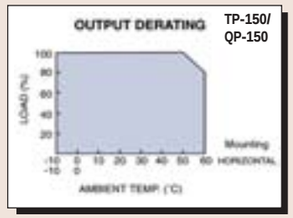
- 100% full-load burn-in
- Universal AC input
- Power Factor Correction
- 2.8 watts/in³ maximum
- 105˚C output capacitor
- Three-year warranty
- Mating connectors: P/N 103587CF, pg 123
- -10˚C to +60˚C working temperature (see output derating)
- Mounting hardware: use P/N 222130CF, 222156CF, 222164CF, 222181CF & 222172CF; see www.Jameco.com for specifications

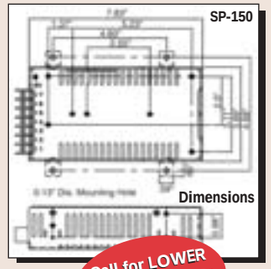
PERFORMANCE AT VALUE PRICES

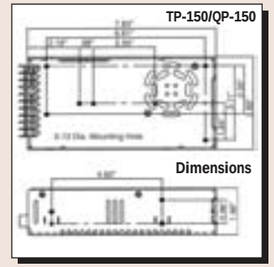


Detailed below in tan, these advanced switchers are part of Mean Well's family of premium power supplies that carry an unusually long three-year manufacturer's warranty. Their performance, reliability and low cost result from a modern state-of-the-art design using integrated components. The SP-150, TP-150 and QP-150 offer input Power Factor Correction that meets EN61000-3-2. Assured to operate correctly anywhere in the world, these enclosed switchers feature universal voltage input ranges of 85-264VAC and 120-370VDC. These products are approved by UL, CUL and TUV, and carry the CE mark, for use worldwide.
EMC standards met are EN55022 Class B and EN61000-4-2/3/4/5/6/8/11.









Call for LOWER PRICES on Larger Quantities

	Jameco Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Output Power	Input (VAC @ Hz)	PFC	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25	
Enclosed	123393CF	Mean Well	S-150-5	5V@0-30A	150.0W	88-132/176-264@47-63	—	see diagram	see diagram	2.24	150	0.5		0.5	35	3,000	3.5	50	20	10-500Hz; 2G	10	78	1.8	UL/CUL/TUV/CE	123393CF	$76.95	$46.99	$40.99	Enclosed
	123414CF	Mean Well	S-150-7.5	7.5V@0-20A	150.0W	88-132/176-264@47-63	—	see diagram	see diagram	2.24	150	0.5		0.5	35	3,000	3.5	50	20	10-500Hz; 2G	10	80	1.8	UL/CUL/TUV/CE	123414CF	76.95	46.99	40.99	
	123422CF	Mean Well	S-150-12	12V@0-12.5A	150.0W	88-132/176-264@47-63	—	see diagram	see diagram	2.24	180	0.3		0.3	35	3,000	3.5	50	20	10-500Hz; 2G	10	82	1.8	UL/CUL/TUV/CE	123422CF	76.95	46.99	40.99	
	202024CF	Mean Well	S-150-13.5	13.5V@0-11.2A	151.2W	88-132/176-264@47-63	—	see diagram	see diagram	2.25	180	0.3	⟷	0.3	35	3,000	3.5	50	20	10-500Hz; 2G	10	83	1.8	UL/CUL/TUV/CE	202024CF	76.95	46.99	40.99	
	123431CF	Mean Well	S-150-15	15V@0-10A	150.0W	88-132/176-264@47-63	—	see diagram	see diagram	2.24	180	0.3		0.3	35	3,000	3.5	50	20	10-500Hz; 2G	10	84	1.8	UL/CUL/TUV/CE	123431CF	76.95	46.99	40.99	
	123449CF	Mean Well	S-150-24	24V@0-6.5A	156.0W	88-132/176-264@47-63	—	see diagram	see diagram	2.33	240	0.2		0.2	35	3,000	3.5	50	20	10-500Hz; 2G	10	85	1.8	UL/CUL/TUV/CE	123449CF	76.95	46.99	40.99	
	202032CF	Mean Well	S-150-27	27V@0-5.6A	151.2W	88-132/176-264@47-63	—	see diagram	see diagram	2.25	240	0.2		0.2	35	3,000	3.5	50	20	10-500Hz; 2G	10	86	1.8	UL/CUL/TUV/CE	202032CF	76.95	46.99	40.99	
	167345CF	Mean Well	S-150-48	48V@0-3.2A	153.6W	88-132/176-264@47-63	—	see diagram	see diagram	2.29	240	0.2		0.2	35	3,000	3.5	50	20	10-500Hz; 2G	10	87	1.8	UL/CUL/TUV/CE	167345CF	76.95	46.99	40.99	
	201902CF	Mean Well	SP-150-3.3	3.3V@0-30A	99.0W	85-264@47-63	✓	see diagram	see diagram	1.63	100	1.0		0.5	40	3,000	2.0	30	20	10-500Hz; 2G	10	67	1.7	UL/CUL/TUV/CE	201902CF	97.95	69.99	61.99	
	201911CF	Mean Well	SP-150-5	5V@0-30A	150.0W	85-264@47-63	✓	see diagram	see diagram	2.47	100	1.0		0.5	40	3,000	2.0	30	20	10-500Hz; 2G	10	75	1.7	UL/CUL/TUV/CE	201911CF	97.95	69.99	61.99	
	173420CF	Mean Well	SP-150-12	12V@0-12.5A	150.0W	85-264@47-63	✓	see diagram	see diagram	2.47	100	0.5		0.5	40	3,000	2.0	30	20	10-500Hz; 2G	10	80	1.7	UL/CUL/TUV/CE	173420CF	97.95	69.99	61.99	
	173411CF	Mean Well	SP-150-15	15V@0-10A	150.0W	85-264@47-63	✓	see diagram	see diagram	2.47	100	0.5		0.5	40	3,000	2.0	30	20	10-500Hz; 2G	10	81	1.7	UL/CUL/TUV/CE	173411CF	97.95	69.99	61.99	
	173403CF	Mean Well	SP-150-24	24V@0-6.3A	150.0W	85-264@47-63	✓	see diagram	see diagram	2.47	150	0.5	⟷	0.5	40	3,000	2.0	30	20	10-500Hz; 2G	10	83	1.7	UL/CUL/TUV/CE	173403CF	97.95	69.99	61.99	
	201929CF	Mean Well	SP-150-48	48V@0-3.2A	153.6W	85-264@47-63	✓	see diagram	see diagram	2.52	250	0.5		0.5	40	3,000	2.0	30	20	10-500Hz; 2G	10	84	1.7	UL/CUL/TUV/CE	201929CF	97.95	69.99	61.99	
	213858CF	Mean Well	TP-150A	5V@2-15A; 12V@0.4-6A; -5V@0-0.6A	150.0W	90-264@47-63	✓	see diagram	see diagram	2.75	100	3.0		1.0	45	3,000	3.5	60	20	10-500Hz; 2G	10	75	1.8	UL/CUL/TUV/CE	213858CF	$149.95 135.95	108.99	95.99	
	213840CF	Mean Well	TP-150B	5V@2-15A; 12V@0.4-5.5A; -12V@0-0.6A	148.2W	90-264@47-63	✓	see diagram	see diagram	2.71	100	3.0		1.0	45	3,000	3.5	60	20	10-500Hz; 2G	10	77	1.8	UL/CUL/TUV/CE	213840CF	$149.95 135.95	108.99	95.99	
	213831CF	Mean Well	TP-150C	5V@2-15A; 15V@0.4-4.5A; -15V@0-0.6A	151.5W	90-264@47-63	✓	see diagram	see diagram	2.77	100	3.0		1.0	45	3,000	3.5	60	20	10-500Hz; 2G	10	77	1.8	UL/CUL/TUV/CE	213831CF	$149.95 135.95	108.99	95.99	
	213823CF	Mean Well	TP-150D	5V@2-15A; 24V@0.4-3A; 12V@0-0.6A	154.2W	90-264@47-63	✓	see diagram	see diagram	2.82	100	3.0		1.0	45	3,000	3.5	60	20	10-500Hz; 2G	10	78	1.8	UL/CUL/TUV/CE	213823CF	$149.95 135.95	108.99	95.99	
	213633CF	Mean Well	QP-150-3B	3.3V@0-10A; 5V@3-10A; 12V@0.4-5A; -12V@0-0.6A	150.2W	90-264@47-63	✓	see diagram	see diagram	2.47	100	2.0		1.0	45	3,000	3.5	50	16	10-500Hz; 2G	10	75	1.8	UL/CUL/TUV/CE	213633CF	$169.95 145.95	120.99	106.99	
	213655CF	Mean Well	QP-150D	5V@3-10A; 12V@0-4A; 24V@0.4-2A; -12V@0-0.6A	150.2W	90-264@47-63	✓	see diagram	see diagram	2.47	120	2.0	⟷	1.0	45	3,000	3.5	50	16	10-500Hz; 2G	10	78	1.8	UL/CUL/TUV/CE	213655CF	$169.95 145.95	120.99	106.99	
	213647CF	Mean Well	QP-150F	5V@3-10A; 15V@0-3A; 24V@0.4-2A; -15V@0-0.6A	152.0W	90-264@47-63	✓	see diagram	see diagram	2.50	120	2.0		1.0	45	3,000	3.5	50	16	10-500Hz; 2G	10	78	1.8	UL/CUL/TUV/CE	213647CF	$169.95 145.95	120.99	106.99	

Other Versions Available: Call 800-831-4242

* Primary Output

Limited Supply – Special Offers – 90-Day Warranty

	Jameco Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Output Power	Input (VAC @ Hz)	PFC	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25	
Enclosed	205701CF	Volgen	EXU-05030	5V@30A	150.0W	100/120@50-60	—	7.7x3.7x2.3	5.0x2.2x0.16	2.29	—	0.8		0.4	30	2,000	0.5	200	—	10-55Hz: 20G	10	80	1.6	UL/CSA	205701CF	$74.95 $34.95	$31.49	$28.35	Enclosed
	205743CF	Volgen	EXU-15010	15V@10A	150.0W	100-120@50-60	—	7.7x3.8x2.3	5.0x2.2x0.16	2.23	—	0.8		0.4	30	2,000	0.5	200	—	10-55Hz: 20G	10	80	1.9	UL/CSA	205743CF	$74.95 34.95	31.49	28.35	
	206009CF	Volgen	MRE-15010U	15V@10A	150.0W	120/240@50-60	—	9.6x4.1x2.4	—	1.59	—	—	⟷	—	—	—	—	—	—	—	—	—	—	UL/CSA/TUV	206009CF	$59.95 24.95	22.49	20.25	
	199515CF	Globtek	RT-3S150-24	24V@6.5A	150.0W	115/230@50-60	—	7.9x4.3x1.9	6.8x3.8x0.14	2.32	100	5.0		5.0	35	3,000	3.5	—	20	—	5	80	1.8	UL/CE	199515CF	59.95	47.95	35.95	
	205663CF	SSI	SQV140-1333	5V@20A; 15V@5A; 15V@3A; 15V@3A	140.0W	120/240@50-60	—	10.5x5.0x2.5	8.9x3.9x0.12	1.07	50	1.0		0.2	15	3,750	—	—	16	—	5	75	4.6	UL/CSA/TUV	205663CF	$34.95 16.49	14.99	13.65	

* Primary Output

Color Code Legend: New Sale Qty Save

New Lower Prices Marked in Red

120 to 150-Watt Switching DC Power Supplies (Continued)

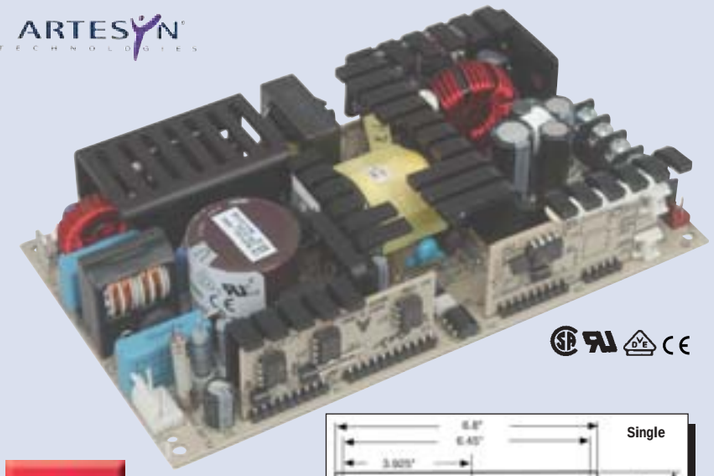
Power

150-Watt Open Frame With Power Factor Correction

NLP150 Series: Single & Quad Output

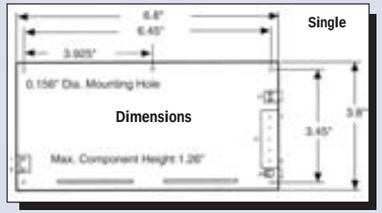
- 100% full-load burn-in
- Power Factor Correction
- 150W with 300LFM of air
- 1U package: 6.8" x 3.8" x 1.3"
- Parallel operation (current sharing)
- Mating connectors: P/N 104432CF, pg 129 & 103587CF, pg 123
- 0˚ to +70˚C working temperature (see output derating)
- Universal AC input
- 4.3 watts/in³ maximum
- Two-year warranty

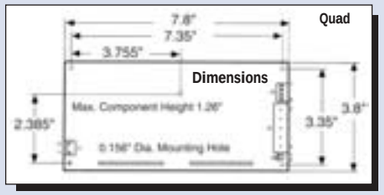
ARTESYN TECHNOLOGIES

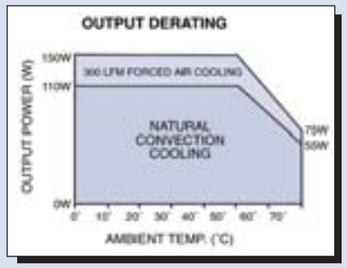


Highlighted in blue below, the Artesyn NLP150 series are Power Factor Corrected to meet the EN61000-3-2 standard, and they support current sharing on V_A and V_B. Standard features include universal input, over-voltage and short-circuit protection, as well as power fail detection. This series carries UL, CSA and VDE approvals; and are CE marked. With a height of only 1.26", these supplies are commonly used in 1U shelves and boxes, and are primarily intended for networking applications that have a heavy logic content, such as access concentrators, midrange routers, LAN switches and shared media hubs.

TOP QUALITY U.S. BRAND







UNDERSTANDING POWER SUPPLIES #10 & 11

ISOLATION VOLTAGE: The maximum AC or DC voltage which may be continuously applied from input to output and/or chassis of a power supply.

LEAKAGE CURRENT: The AC or DC current flowing from input to output and/or chassis of an isolated power supply at a specified range.

150-Watt Open Frame With Power Factor Correction

LPP-150 Series: Single Output

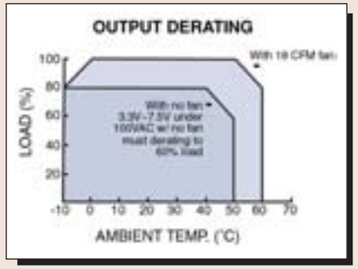
- 100% full-load burn-in
- No minimum load required
- 105˚C output capacitor
- Power Factor Correction
- Mating connectors: P/N 215950CF & 215968CF, pg 129
- -10˚C to +60˚C working temperature (see output derating)
- Auto-switch AC input
- 3.6 watts/in³ maximum
- Three-year warranty

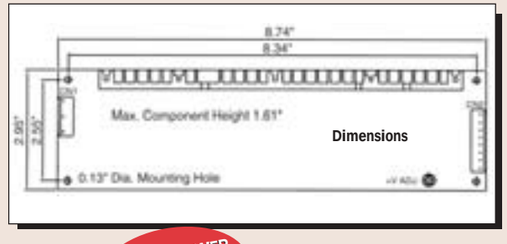
MW MEAN WELL



Detailed below in tan, the LPP-150 series is Mean Well's most powerful open-frame switching power supply. It features input Power Factor Correction that complies with EN61000-3-2 and achieves 0.98 at 115VAC. Couple this with the full-range universal input ranges of 85-264VAC and 120-370VDC, and these switchers are ready for use worldwide. Full 150-watt output power is available from 0˚C to 50˚C with 18 CFM of forced air cooling and 120 watts is available to -10˚C and 60˚C. Meeting the requirements of UL1950 and TUV EN60950, these products are approved by UL, CUL, and TUV; and carry the CE mark. The highly compact layout results in an impressive power density of 3.6 watts per cubic inch and maximum height of 1.6".

PERFORMANCE AT VALUE PRICES





UNDERSTANDING POWER SUPPLIES #12 & 13

INRUSH CURRENT: The peak instantaneous input current drawn by a power supply at turn-on.

LINE REGULATION: The change in output voltage in percent as the input voltage is varied over its specified limits, with load and temperature constant.

Call for LOWER PRICES on Larger Quantities

Jameco Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Output Power	Input (VAC @ Hz)	PFC	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25	
218991CF	Artesyn	NLP150L-96S3	+3.3V@1-22A	72.6W	90-264@47-63	✓	6.8x3.8x1.26	6.45x3.45x0.156	2.16	50	2.0		2.0	40	3,000	0.99	—	20	5-500Hz; 2.4G	—	73	1.2	UL/VDE/CE	**218991CF**	**$116.85**	**$99.95**	**$94.15**	
219011CF	Artesyn	NLP150L-96S5	+5.1V@1-22A	112.2W	90-264@47-63	✓	6.8x3.8x1.26	6.45x3.45x0.156	3.34	50	2.0		2.0	40	3,000	0.99	—	20	5-500Hz; 2.4G	—	73	1.2	UL/VDE/CE	**219011CF**	**116.85**	**99.95**	**94.15**	
219002CF	Artesyn	NLP150L-96S8	+24V@0.15-4.6A	110.4W	90-264@47-63	✓	6.8x3.8x1.26	6.45x3.45x0.156	3.29	240	2.0	⟷	2.0	40	3,000	0.99	—	20	5-500Hz; 2.4G	—	73	1.2	UL/VDE/CE	**219002CF**	**116.85**	**99.95**	**94.15**	
219029CF	Artesyn	NLP150L-96Q5366	+3.3V@0.5-10A; +5.1V@1.5-20A; +12V@0-2A; +12V@0-0.65A	120.0W	90-264@47-63	✓	6.8x3.8x1.26	6.45x3.45x0.156	4.33	50	2.0		2.0	40	3,000	0.99	1500	20	5-500Hz; 2.4G	—	73	1.2	UL/CSA/VDE/CE	**219029CF**	**116.85**	**99.95**	**94.15**	
213698CF	Mean Well	LPP-150-5	+5V@0-30A	150.0W	85-264@47-63	✓	8.74x2.95x1.61	8.34x2.55x0.13	3.59	100	1.0		0.5	40	3,000	3.5	30	20	10-500Hz; 2G	10	72	1.2	UL/CUL/TUV/CE	**213698CF**	**71.95**	**48.99**	**42.99**	
213680CF	Mean Well	LPP-150-12	+12V@0-12.5A	150.0W	85-264@47-63	✓	8.74x2.95x1.61	8.34x2.55x0.13	3.59	100	1.0	⟷	0.5	40	3,000	3.5	30	20	10-500Hz; 2G	10	79	1.2	UL/CUL/TUV/CE	**213680CF**	**71.95**	**48.99**	**42.99**	
213671CF	Mean Well	LPP-150-24	+24V@0-6.3A	150.0W	85-264@47-63	✓	8.74x2.95x1.61	8.34x2.55x0.13	3.59	150	0.5		0.5	40	3,000	3.5	30	20	10-500Hz; 2G	10	83	1.2	UL/CUL/TUV/CE	**213671CF**	**71.95**	**48.99**	**42.99**	
216645CF	Mean Well	LPP-150-48	+48V@0-3.2A	153.6W	85-264@47-63	✓	8.74x2.95x1.61	8.34x2.55x0.13	3.68	250	0.5		0.5	40	3,000	3.5	30	20	10-500Hz; 2G	10	83	1.2	UL/CUL/TUV/CE	**216645CF**	**71.95**	**48.99**	**42.99**	

Open Frame

Other Versions Available: Call 800-831-4242

* Primary Output

Limited Supply – Special Offers – 90-Day Warranty

Jameco Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Output Power	Input (VAC @ Hz)	PFC	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25	
185560CF	EOS	VLT130-1100	+5V@0.5-26A	130.0W	100-240@50-60	✓	5.1x3.1x0.8	4.6x2.6x0.16	10.28	50	1.0		0.3	40	—	—	10	15	—	—	82	0.6	UL/VDE/CE	**185560CF**	~~$13.95~~ **$10.25**	~~$13.95~~ **$9.35**	~~$13.95~~ **$8.45**	
204601CF	Power-One	MAP140-1024	+24V@5.8A	140.0W	85-264@47-63	—	7.0x4.3x1.9	6.5x3.8x0.17	2.45	240	0.5		1.0	41	2,600	0.5	20	20	10-2kHz; 6G	—	70	1.5	UL/CSA/TUV/CE	**204601CF**	~~$53.95~~ **29.95**	**26.99**	**24.29**	
204572CF	Digital Power	USS150-124	+24V@6A	150.0W	90-250@47-63	—	6.9x3.9x1.5	—	3.72	—	—		—	—	—	—	—	—	—	—	—	1.4	UL/CUL/CSA/TUV/CE	**204572CF**	~~$51.95~~ **31.95**	**28.79**	**25.89**	
208670CF	Power-One	MPU1503300S240	+3.3V@30A; +12V@3A	135.0W	85-250@50-60	—	8.1x4.2x1.5	6.5x3.8x0.16	2.65	50	1.5		0.6	35	2,600	0.13	20	20	10-2kHz; 6G	—	75	1.9	UL/CSA/TUV	**208670CF**	~~$49.95~~ **24.95**	**22.49**	**20.25**	
220193CF	Cherokee	MQT154A1†	+3.3V@8A; +5V@26A; +12V@6A; -12V@1A	150.0W	100-240@47-63	—	8.0x4.3x1.5	6.4x2.5x0.13	2.91	—	—	⟷	—	—	—	—	—	—	—	—	—	2.0	UL/CSA	**220193CF**	**28.95**	**23.19**	**17.39**	
210876CF	EOS	VLT130-4100	+3.3V@0.5-16A; +5V@0.5-14A; +12V@0.1-1.5A; -12V@0.1-1.5A	130.0W	100-240@50-60	✓	5.0x3.0x0.9	4.6x2.6x0.16	9.63	50	1.0		0.3	40	—	—	10	15	—	—	82	0.7	UL/CUL/VDE/CE	**210876CF**	**19.95**	**17.95**	**15.95**	
203431CF	Cherokee	QT24A1V	+5V@15A; +12V@5A; -5V@1A; -12V@1A	150.0W	115-240@50-60	—	6.8x3.9x1.5	6.4x2.5x0.08	3.77	50	5.0		5.0	35	2,600	—	—	16	—	—	75	1.4	UL/CSA/TUV	**203431CF**	**29.95**	**26.95**	**23.95**	

Open Frame

* Primary Output † 8" power cable included

150 to 240-Watt Switching DC Power Supplies

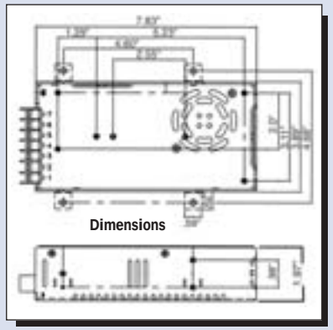
200-Watt Enclosed With Power Factor Correction

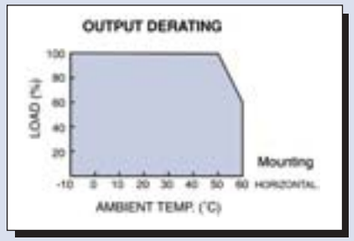
SP-200 Series: Single Output



- 100% full-load burn-in
- Universal AC input
- No minimum load required
- Power Factor Correction
- Three-year warranty
- 105˚C output capacitor
- 3.3 watts/in³ maximum
- Built-in fan cooling
- Mating connectors: P/Ns 103587CF, pg 123
- -10˚ to +60˚C working temperature (see output derating)
- Mounting hardware use P/N 222130CF, 222156CF, 222164CF, 222181CF & 222172CF; see www.Jameco.com for specifications

Detailed below in blue, this advanced switcher line is part of Mean Well's family of premium power supplies that carry an unusually long three-year warranty. Their performance, reliability and low cost result from a modern state-of-the-art design using highly integrated components. The SP-200 offers input Power Factor Correction that meets EN61000-3-2, required in Europe for power supplies 75 watts and above. Assured to operate correctly anywhere in the world, these open-frame switchers feature universal voltage input ranges of 85-264VAC and 120-370VDC. The built-in cooling fan operates automatically from both thermal and load-based sensors. These products are approved by UL, CUL, and TUV; and carry the CE mark, for use worldwide. The EMC standards met are EN55022 Class B and EN61000-4-2/3/4/5/6/8/11.





UNDERSTANDING POWER SUPPLIES #14

RADIATED EMI: Also called radio-frequency interference (RFI), EMI is unwanted high-frequency energy caused by the switching transistors, output rectifiers, and zener diodes in switching power supplies. That portion that is radiated through space is known as Radiated EMI. Most radiated EMI measurements are done between 30MHz and 300MHz.

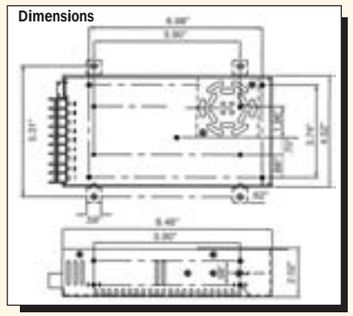
200-Watt Enclosed With Power Factor Correction

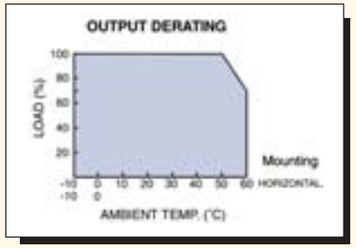
QP-200 Series: Quad Output



- 100% full-load burn-in
- Universal AC input
- Remote sense
- Power Factor Correction
- 105˚C output capacitor
- Three-year warranty
- Built-in fan cooling
- 2.6 watts/in³ maximum
- Mating connectors: P/Ns 103587CF, pg 123
- -10˚ to +60˚C working temperature (see output derating)
- Mounting hardware use P/N 222148CF, 222156CF, 222181CF & 222172CF; see www.Jameco.com for specifications

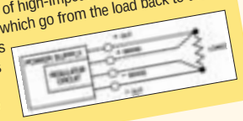
Shown below in buff color, the Mean Well QP-200 quad-output, enclosed switcher features remote sensing for precise point-of-load voltage control on V1 and V2, and full isolation on V4. The built-in cooling fan assures safe operation at full power output over the ambient temperature range of -10˚C to 50˚C, with derating to 60˚C (see below). The impressive performance, reliability and low-cost of the QP-200 series results from a modern state-of-the-art design using highly integrated components. It offers input Power Factor Correction that meets EN61000-3-2, required in Europe for power supplies 75 watts and above. Assured to operate correctly anywhere in the world, these open-frame switchers feature universal voltage input ranges of 90-264VAC and 127-370VDC. These products are approved by UL, CUL and TUV; and carry the CE mark, for worldwide use. The QP-200 series meetsEMC standards EN55022 Class B and EN61000-4-2/3/4/5/6/8/11.





UNDERSTANDING POWER SUPPLIES #15

REMOTE SENSING: A technique of regulating the output voltage of a power supply at the load by means of high-impedance, low-current sensing leads which go from the load back to the regulator. This compensates for voltage drops in the load leads.



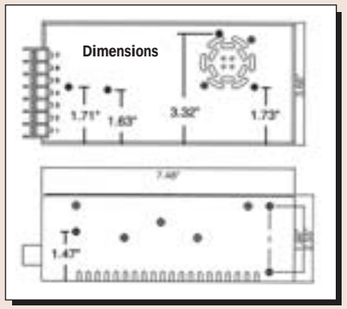
240-Watt Enclosed

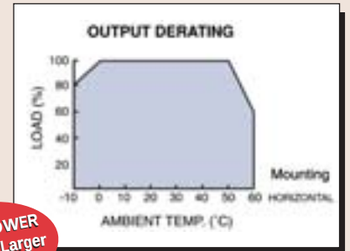
S-240 Series: Single Output



- 100% full-load burn-in
- Auto-switch AC input
- No minimum load required
- 3.4 watts/in³ max.
- 105˚C output capacitor
- Auto cooling fan
- Two-year warranty
- Mating connectors: 103587CF, pg 123
- -10˚C to +60˚C working temp. (see output derating)
- Mounting hardware use P/N 222148CF, 222156CF & 222172CF; see www.Jameco.com for specifications

Highlighted below in tan, with a built-in cooling fan that operates from an automatic thermal switch, the workhorse Mean Well S-240 produces 240 watts of power from 0˚C to 50˚C, and is derated to -10˚C and 60˚C (see below). The input features an auto-sensing circuit that switches between 88-132VAC and 176-264VAC. The impressive reliability derives from a conservative design, the exclusive use of high-quality components, and 100% full-load burn-in. Protection includes short-circuit, overload and over-voltage. A novel soft-start circuit limits the AC surge current. Guaranteed safety standards comprise UL1950 and TUV EN60950, and these products carry the European CE mark. The DC output voltage can be adjusted ±10% of nominal rating.





UNDERSTANDING POWER SUPPLIES #16

OUTPUT CURRENT LIMITING: An output protection feature which limits the output current to a predetermined value in order to prevent damage to the power supply or the load under overload conditions. The supply is automatically restored to normal operation following removal of the overload.



Call for LOWER PRICES on Larger Quantities

	Jameco Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Output Power	Input (VAC @ Hz)	PFC	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25	
Enclosed	212417CF	Mean Well	SP-200-3.3	+3.3V@0-40A	132.0W	85-264@47-63	✓	see diagram	see diagram	2.17	100	1.0		0.5	40	3,000	2.0	30	20	10-500Hz: 2G	10	65	1.9	UL/CUL/TUV/CE	212417CF	$109.95	$77.99	$67.99	Enclosed
	202041CF	Mean Well	SP-200-5	+5V@0-40A	200.0W	85-264@47-63	✓	see diagram	see diagram	3.29	100	1.0		0.5	40	3,000	2.0	30	20	10-500Hz: 2G	10	71	1.9	UL/CUL/TUV/CE	202041CF	109.95	77.99	67.99	
	194773CF	Mean Well	SP-200-12	+12V@0-16.7A	200.4W	85-264@47-63	✓	see diagram	see diagram	3.29	100	0.5	⟷	0.5	40	3,000	2.0	30	20	10-500Hz: 2G	10	79	1.9	UL/CUL/TUV/CE	194773CF	109.95	77.99	67.99	
	212409CF	Mean Well	SP-200-13.5	+13.5V@0-14.9A	201.1W	85-264@47-63	✓	see diagram	see diagram	3.31	100	0.5		0.5	40	3,000	2.0	30	20	10-500Hz: 2G	10	80	1.9	UL/CUL/TUV/CE	212409CF	109.95	77.99	67.99	
	202059CF	Mean Well	SP-200-15	+15V@0-13.4A	201.0W	85-264@47-63	✓	see diagram	see diagram	3.30	100	0.5		0.5	40	3,000	2.0	30	20	10-500Hz: 2G	10	81	1.9	UL/CUL/TUV/CE	202059CF	109.95	77.99	67.99	
	194781CF	Mean Well	SP-200-24	+24V@0-8.4A	201.6W	85-264@47-63	✓	see diagram	see diagram	3.31	150	0.5		0.5	40	3,000	2.0	30	20	10-500Hz: 2G	10	83	1.9	UL/CUL/TUV/CE	194781CF	109.95	77.99	67.99	
	202067CF	Mean Well	SP-200-48	+48V@0-4.2A	201.6W	85-264@47-63	✓	see diagram	see diagram	3.31	250	0.5		0.5	40	3,000	2.0	30	20	10-500Hz: 2G	10	84	1.9	UL/CUL/TUV/CE	202067CF	109.95	77.99	67.99	
	213743CF	Mean Well	QP-200-3B	+3.3V@0-15A; +5V@3-15A; +12V@0.5-6A; -12V@0-0.7A	204.9W	90-264@47-63	✓	see diagram	see diagram	2.65	100	2.0		1.0	45	3,000	2.0	50	16	10-500Hz: 2G	10	72	2.4	UL/CUL/TUV/CE	213743CF	$179.95 156.95	127.99	112.99	
	213735CF	Mean Well	QP-200-3D	+3.3V@0-15A; +5V@3-10A; +24V@0.4-4A; -12V@0-0.7A	203.9W	90-264@47-63	✓	see diagram	see diagram	2.64	100	2.0	⟷	1.0	45	3,000	2.0	50	16	10-500Hz: 2G	10	74	2.4	UL/CUL/TUV/CE	213735CF	$179.95 156.95	127.99	112.99	
	213751CF	Mean Well	QP-200D	+5V@3-15A; +12V@0-4A; +24V@0.4-3A; -12V@0-0.7A	203.4W	90-264@47-63	✓	see diagram	see diagram	2.63	100	2.0		1.0	45	3,000	2.0	50	16	10-500Hz: 2G	10	75	2.4	UL/CUL/TUV/CE	213751CF	$179.95 156.95	127.99	112.99	
	202083CF	Mean Well	S-240-5	+5V@0-40A	200.0W	88-132/176-264@47-63	—	see diagram	see diagram	2.86	150	1.0		0.5	18	3,000	1.2	20	20	10-500Hz: 2G	10	78	2.5	UL/CUL/TUV/CE	202083CF	103.95	91.99	80.99	
	137648CF	Mean Well	S-240-12	+12V@0-18A	216.0W	88-132/176-264@47-63	—	see diagram	see diagram	3.09	150	0.5		0.5	18	3,000	1.2	20	20	10-500Hz: 2G	10	82	2.5	UL/CUL/TUV/CE	137648CF	103.95	91.99	80.99	
	202075CF	Mean Well	S-240-15	+15V@0-15A	225.0W	88-132/176-264@47-63	—	see diagram	see diagram	3.22	150	0.5	⟷	0.5	18	3,000	1.2	20	20	10-500Hz: 2G	10	83	2.5	UL/CUL/TUV/CE	202075CF	103.95	91.99	80.99	
	137656CF	Mean Well	S-240-24	+24V@0-10A	240.0W	88-132/176-264@47-63	—	see diagram	see diagram	3.40	180	0.5		0.5	18	3,000	1.2	20	20	10-500Hz: 2G	10	84	2.5	UL/CUL/TUV/CE	137656CF	103.95	91.99	80.99	
	167337CF	Mean Well	S-240-48	+48V@0-5A	240.0W	88-132/176-264@47-63	—	see diagram	see diagram	3.40	240	1.0		1.0	18	3,000	1.2	20	20	10-500Hz: 2G	10	87	2.5	UL/CUL/TUV/CE	167337CF	103.95	91.99	80.99	

Other Versions Available: Call 800-831-4242

* Primary Output

240 to 375-Watt Switching DC Power Supplies

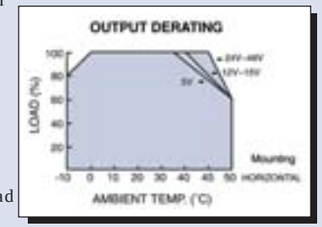
300-Watt Enclosed With Power Factor Correction

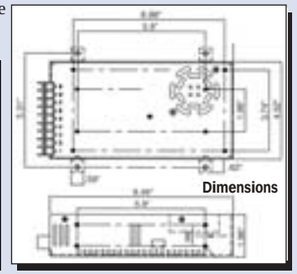
SP-300 Series: Single Output



- 100% full-load burn-in
- Universal AC input
- No minimum load required
- 3.7 watts/in³ maximum
- Power Factor Correction
- Three-year warranty
- 105˚C output capacitor
- Auto cooling fan
- Mating connectors: P/Ns 103587CF, pg 123
- -10˚ to +60˚C working temperature (see output derating)
- Mounting hardware: use P/Ns 222156CF, 222130CF, 222181CF & 222172CF; see www.Jameco.com for specs

Detailed below in blue, this series features input Power Factor Correction that meets EN61000-3-2, required in Europe for power supplies 75 watts and above. These advanced switchers are part of Mean Well's family of premium power supplies that carry an unusually long three-year warranty. Couple this with the full range universal input ranges of 85-264VAC and 120-370VDC, and these switchers are ready for use worldwide. Meeting the requirements of UL1950 and TUV EN60950, they are approved by UL and TUV, and carry the CE mark. The high-density enclosed packaging results in a profile of only 2" and a power density of 2.5 watts per cubic inch. Protection includes short-circuit, overload and over-voltage.





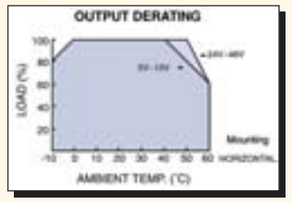
320-Watt Enclosed

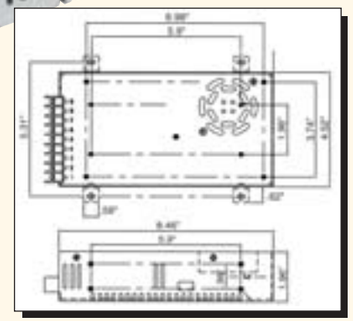
S-320 Series: Single Output



- 100% full-load burn-in
- Auto cooling fan
- No minimum load required
- 4.1 watts/in³ max.
- 105˚C output capacitor
- Two-year warranty
- Mating connectors: P/Ns 103587CF, pg 123
- -10˚ to +60˚C working temp. (see output derating)
- Mounting hardware: use P/Ns 222156CF, 222148CF, 222181CF & 222172CF; see www.Jameco.com

Shown below in buff color, the workhorse S-320 series has long been one of the most popular series of Mean Well power supplies. Full 320 watts of power is available over the ambient temperature range of 0˚C to 50˚C. With derating the range extends to -10˚C & 60˚C. The solid, reliable, low-cost design features overload protection to 135% of rated load with auto-recovery, and over-voltage protection to 145% of rated output voltage.





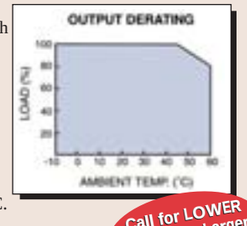
375-Watt Enclosed With Power Factor Correction

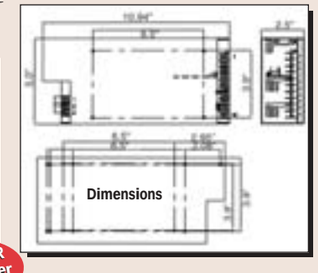
QP-375 Series: Quad Output



- 100% full-load burn-in
- Universal AC input
- Remote sense
- 2.8 watts/in³ maximum
- Auto cooling fan
- Three-year warranty
- 105˚C output capacitor
- Mating connectors: 103587CF, pg 123
- -10˚C to +60˚C working temperature (see output derating)
- Mounting hardware: use P/Ns 222156CF & 222172CF; see www.Jameco.com for specifications

Highlighted below in tan, the Mean Well QP-375 series is a unique quad-output switcher design that offers no minimum current requirement for V2 & V3. Additionally, both V1 and V2 are fully isolated so they can be operated with ± polarity. Greater versatility results from availability of remote sensing for precise point-of-load voltage control and a "power good / fail signal". The built-in cooling fan assures safe operation at full power output over the ambient temp. range of -10˚C to 45˚C, with derating to 60˚C (see below). The QP-375 series offers input Power Factor Correction that meets EN61000-3-2. This enclosed switcher line features universal voltage input ranges of 90-264VAC & 120-370VDC.





Call for LOWER PRICES on Larger Quantities

	Jameco Part No.	Manufacturer	Manufacturer Product Number	Output: Voltage@Current (min-max)	Output: Power	Input (VAC @ Hz)	PFC	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price: 1	Price: 10	Price: 25	
Enclosed	202091CF	Mean Well	SP-300-5	+5V@0-50A	250.0W	88-264@47-63	✓	see diagram	see diagram	3.09	150	1.0		0.5	18	3,000	1.0	50	20	10-500Hz: 2G	10	75	2.6	UL/CUL/TUV/CE	202091CF	$185.95	$123.99	$109.99	Enclosed
	137390CF	Mean Well	SP-300-12	+12V@0-24A	288.0W	88-264@47-63	✓	see diagram	see diagram	3.56	150	0.5		0.3	18	3,000	1.0	50	20	10-500Hz: 2G	10	83	2.6	UL/CUL/TUV/CE	137390CF	185.95	123.99	109.99	
	212396CF	Mean Well	SP-300-13.5	+13.5V@0-21A	285.0W	88-264@47-63	✓	see diagram	see diagram	3.52	150	0.5		0.3	18	3,000	1.0	50	20	10-500Hz: 2G	10	83	2.6	UL/CUL/TUV/CE	212396CF	185.95	123.99	109.99	
	202104CF	Mean Well	SP-300-15	+15V@0-19A	285.0W	88-264@47-63	✓	see diagram	see diagram	3.52	150	0.5	⟷	0.3	18	3,000	1.0	50	20	10-500Hz: 2G	10	83	2.6	UL/CUL/TUV/CE	202104CF	185.95	123.99	109.99	
	137402CF	Mean Well	SP-300-24	+24V@0-12.5A	300.0W	88-264@47-63	✓	see diagram	see diagram	3.70	150	0.5		0.2	18	3,000	1.0	50	20	10-500Hz: 2G	10	85	2.6	UL/CUL/TUV/CE	137402CF	185.95	123.99	109.99	
	161980CF	Mean Well	SP-300-48	+48V@0-6.25A	300.0W	88-264@47-63	✓	see diagram	see diagram	3.70	240	0.5		0.2	18	3,000	1.0	50	20	10-500Hz: 2G	10	85	2.6	UL/CUL/TUV/CE	161980CF	185.95	123.99	109.99	
	216776CF	Mean Well	S-320-5	+5V@0-50A	250.0W	88-132/176-264@47-63	—	see diagram	see diagram	3.27	150	1.0		0.5	20	3,000	3.5	20	20	10-500Hz: 2G	10	77	2.5	UL/CUL	216776CF	$129.95 124.95	83.99	73.99	
	207212CF	Mean Well	S-320-7.5	+7.5V@0-36A	270.0W	88-132/176-264@47-63	—	see diagram	see diagram	3.53	150	0.5		0.5	20	3,000	3.5	20	20	10-500Hz: 2G	10	80	2.5	UL/CUL	207212CF	$129.95 124.95	83.99	73.99	
	207204CF	Mean Well	S-320-12	+12V@0-25A	300.0W	88-132/176-264@47-63	—	see diagram	see diagram	3.92	150	0.5	⟷	0.5	20	3,000	3.5	20	20	10-500Hz: 2G	10	82	2.5	UL/CUL	207204CF	$129.95 124.95	83.99	73.99	
	196656CF	Mean Well	S-320-24	+24V@0-12.5A	300.0W	88-132/176-264@47-63	—	see diagram	see diagram	3.92	150	0.5		0.5	20	3,000	3.5	20	20	10-500Hz: 2G	10	86	2.5	UL/CUL	196656CF	$129.95 124.95	83.49	73.49	
	207191CF	Mean Well	S-320-48	+48V@0-6.5A	312.0W	88-132/176-264@47-63	—	see diagram	see diagram	4.08	240	0.5		0.5	20	3,000	3.5	20	20	10-500Hz: 2G	10	87	2.5	UL/CUL	207191CF	$129.95 124.95	83.99	73.99	
	220302CF	Mean Well	QP-375-5A	+5V@3.5-30A; +12V@0-10A; +12V@0-6A; +12V@0-3A	378.0W	88-264@47-63	✓	see diagram	see diagram	2.77	100	0.8		0.5	45	3,000	2.0	50	20	10-500Hz: 2G	10	77	5.1	UL/CUL/TUV/CE	220302CF	388.95	297.99	264.99	
	220290CF	Mean Well	QP-375-5B	+5V@3.5-30A; +12V@0-10A; +12V@0-6A; +5V@0-3A	357.0W	88-264@47-63	✓	see diagram	see diagram	2.62	100	0.8		0.5	45	3,000	2.0	50	20	10-500Hz: 2G	10	77	5.1	UL/CUL/TUV/CE	220290CF	388.95	297.99	264.99	
	220281CF	Mean Well	QP-375-5D	+5V@3.5-30A; +12V@0-9A; +12V@0-4A; +24V@0-3A	378.0W	88-264@47-63	✓	see diagram	see diagram	2.77	100	0.8	⟷	0.5	45	3,000	2.0	50	20	10-500Hz: 2G	10	78	5.1	UL/CUL/TUV/CE	220281CF	388.95	297.99	264.99	
	220273CF	Mean Well	QP-375-24B	+24V@1-10A; +5V@0-10A; +12V@0-4A; +12V@0-4A	386.0W	88-264@47-63	✓	see diagram	see diagram	2.83	240	0.8		0.5	45	3,000	2.0	50	20	10-500Hz: 2G	10	78	5.1	UL/CUL/TUV/CE	220273CF	388.95	297.99	264.99	

Other Versions Available: Call 800-831-4242

* Primary Output

SALE

Limited Supply – Special Offers – 90-Day Warranty

	Jameco Part No.	Manufacturer	Manufacturer Product Number	Output: Voltage@Current (min-max)	Output: Power	Input (VAC @ Hz)	PFC	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price: 1	Price: 10	Price: 50	
Open Frame	204564CF	Digital Power	USS250-115	+15V@0-16.5A	250.0W	90-250@47-63	—	8.0x4.5x2.0	7.6x3.2x0.08	3.47	50	1.0		0.2	25	—	—	—	16	5-500Hz; 0.75G	—	80	1.7	UL/CUL/CSA/TUV/CE	204564CF	$84.95 $39.95	$35.99	$32.39	Open Frame
	196795CF	Cherokee	QP2A2-1A-A	+5V@40A; +12V@2.5A	230.0W	115/230@50-60	—	10.0x4.3x2.5	7.5x3.0x0.15	2.14	50	0.25		0.25	35	—	—	—	20	—	5	75	3.4	TUV	196795CF	$26.95 11.95	10.85	9.85	
	204581CF	Digital Power	UP300-201	+5V@1-40A; +12V@0.2-12A	300.0W	90-250@47-63	—	8.0x4.5x2.0	7.6x3.2x0.10	4.17	50	1.0	⟷	0.2	25	—	—	—	16	5-500Hz; 0.75G	—	75	2.0	UL/CUL/CSA/TUV/CE	204581CF	$99.95 49.95	44.99	39.39	
	206906CF	SSI	SQM200-1221	+5V@30A; +12V@7A; +12V@5A; ±5V@5A	200.0W	100/240@50-60	—	10.5x5.0x2.5	10.0x4.4x0.14	1.52	50	1.0		0.2	15	3,750	—	—	16	—	—	75	5.5	UL/CSA/TUV	206906CF	29.95	26.99	24.29	
	208733CF	Digital Power	USS256-351	+5.5V@1.8A; +12.9V@10A; +12.9V@0.9A	250.0W	90-250@47-63	—	10.0x4.5x1.9	—	—	—	—		—	—	—	—	—	—	—	—	—	1.9	UL/CUL/CSA/TUV/CE	208733CF	$39.95 39.95	35.99	32.39	
	203342CF	Astec	LPQ252	+5V@3-35A; +12V@0-10A; -12V@0-6A; ±5V@0-6A	250.0W	100/250@50-60	✓	9.0x5.0x2.0	—	2.78	50	—		—	20	—	0.5	—	20	5-500Hz; 0.7G	5	75	2.0	UL/CSA/VDE/CE	203342CF	49.95	44.95	39.95	
	210905CF	Lambda	WA305-00-03	+5V@50A; +12V@10A; +24V@4A; -5.2V@4A; -12V@4A	300.0W	85-264@45-440	—	11.9x5.0x1.8	8.1x2.5x0.16	2.80	50	1.0	⟷	0.2	20	4,000	—	—	18	—	—	80	5.5	CE	210905CF	49.95	37.49	26.25	
Enclosed	205647CF	SSI	STM350-1022	+5V@50A; +12V@5A; +12V@8A	350.0W	120/240@50-60	—	13.5x5.0x2.5	—	2.07	—	2.0		0.3	20	—	—	—	16	—	10	75	5.5	UL/TUV	205647CF	$49.95 29.95	26.95	24.29	Enclosed
	196461CF	TODD	MAX3541205AC	+5V@50A; +12V@12A; -5V@2A; -12V@4A	350.0W	115/230@50-60	—	9.0x5.0x2.5	6.5x3.9x0.08	3.11	50	1.0		1.0	10	—	—	—	16	—	5	80	2.0	TUV	196461CF	47.95	43.19	38.89	

* Primary Output

375 to 1500-Watt Switching DC Power Supplies

500-Watt Enclosed With Power Factor Correction

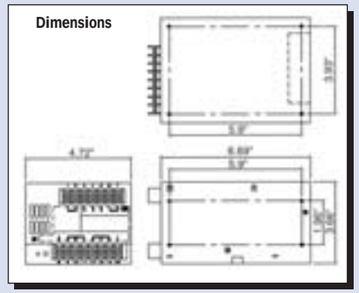
SP-500 Series: Single Output



- 100% full-load burn-in
- Universal AC input
- No minimum load required
- 3.6 watts/in³ max.
- Power Factor Correction
- Auto cooling fan
- 105˚C output capacitor
- Three-year warranty
- Remote control
- Mating connectors: P/Ns 103587CF pg 123
- -10˚ to +60˚C working temp. (see www.Jameco.com for output derating)
- Mounting hardware: use P/Ns 222199CF, 222156CF & 222172CF; see www.Jameco.com for specifications

Detailed below in blue, this advanced switcher line is part of Mean Well's family of premium power supplies that carry an unusually long three-year manufacturers warranty. Their performance, reliability and low cost result from a modern state-of-the-art design using highly integrated components. The SP-500 offers input Power Factor Correction of 0.98 at 115VAC that meets EN61000-3-2, required in Europe for power supplies 75 watts and above. Assured to operate correctly anywhere in the world, these enclosed switchers feature universal voltage input ranges of 88-264VAC and 124-370VDC. These products are approved by UL, CUL, and TUV; and carry the CE mark, for use worldwide. EMC standards met are EN55022 Class B and EN61000-4-2/3/4/5/6/8/11.

Dimensions



500, 1000 & 1500-Watt Enclosed With Power Factor Correction & Current Sharing

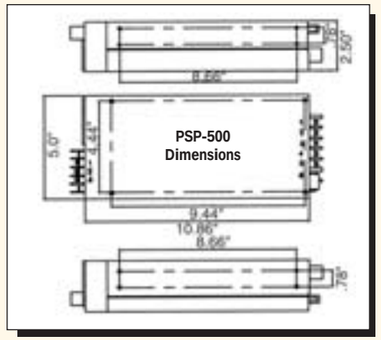
PSP-500, PSP-1000 & PSP-1500 Series: Single Output



PSP-500

- 100% full-load burn-in
- Universal AC input
- No minimum load required
- 3.6 watts/in³ max.
- 105˚C output capacitor
- Three-year warranty
- Parallel operation (current sharing)
- Remote sense and control
- Auto cooling fan
- Mating connectors: P/Ns 103587CF, pg 123
- -10˚ to +60˚C working temp. (see www.Jameco.com for output derating)
- Mounting hardware: use P/Ns 222156CF & 222172CF; see www.Jameco.com for specifications

Highlighted below in buff color, these families of feature rich, high-quality, low-cost switchers provide parallel operation to 2000W, Power Factor Correction of 0.98 at 115VAC that complies with EN61000-3-2, remote sensing for precise point-of-load voltage control, and ON-OFF remote control. Cooling is provided by an integral forced air fan (two in the PSP-1000) that assures safe operation at full power output over the ambient temperature range of 0˚C to 50˚C, with derating -10˚C and 60˚C at 80% of load. Protection includes short-circuit, overload, and over-voltage; a novel soft-start circuit limits the AC surge current. Guaranteed safety standards comprise UL1950 and TUV EN60950, and they carry the CE mark. The PSP-500 and the PSP-1000 series meet EMC standards EN55022 Class B and EN61000-4-2/3/4/5/6/8/11.



600-Watt Enclosed With Current Sharing

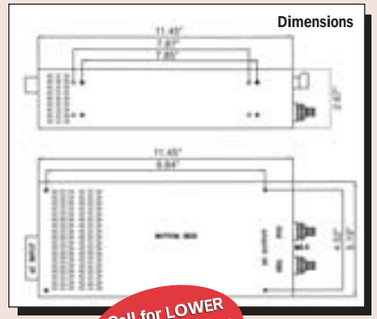
SCN-600 Series: Single Output



- 100% full-load burn-in
- Auto cooling fan
- No minimum load required
- 3.7 watts/in³ maximum
- 105˚C output capacitor
- Two-year warranty
- Parallel operation (current sharing)
- Remote sense and control
- Mating connectors: P/Ns 103587CF, pg 123
- -10˚ to +65˚C working temperature; (+50˚ to -65˚C @ 50% load)
- Mounting hardware: use P/Ns 222156CF & 222172CF; see www.Jameco.com for specifications

Shown below in tan, the SCN-600 family of 600-watt enclosed switchers offer advanced N+1 parallel operation, remote sensing for precise point-of-load voltage control and built-in remote ON-OFF control. Also, a unique capability allows output voltage adjustment from 10-100% of rated value with an external 1-5VDC signal. The DC output voltage can be adjusted ±5% of nominal rating. The solid, reliable, low-cost design features overload protection to 135% of rated load with auto-recovery, and over-voltage protection to 145% of rated output voltage. Additional protection includes short-circuit and a soft-start circuit that limits the AC surge current to a safe value. Meeting the requirements of UL1950 and TUV EN60950, these products are approved by UL, CUL and TUV; and carry the CE mark.

Dimensions



Call for LOWER PRICES on Larger Quantities

	Jamec Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Output Power	Input (VAC @ Hz)	PFC	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25	
Enclosed	190692CF	Mean Well	SP500-12	+12V@0-40A	480.0W	100-240@50-60	✓	see diagram	see diagram	3.60	240	0.5		0.5	18	3,000	3.5	50	20	10-500Hz; 2G	10	84	4.2	UL/CUL/TUV/CE	190692CF	$259.95	$173.99	$152.99	
	212388CF	Mean Well	SP500-13.5	+13.5V@0-36A	486.0W	100-240@50-60	✓	see diagram	see diagram	3.65	240	0.5		0.5	18	3,000	3.5	50	20	10-500Hz; 2G	10	84	4.2	UL/CUL/TUV/CE	212388CF	259.95	173.99	152.99	
	213604CF	Mean Well	SP500-15	+15V@0-32A	480.0W	100-240@50-60	✓	see diagram	see diagram	3.60	240	0.5		0.5	18	3,000	3.5	50	20	10-500Hz; 2G	10	83	4.2	UL/CUL/TUV/CE	213604CF	259.95	173.99	152.99	
	147053CF	Mean Well	SP500-24	+24V@0-20A	480.0W	100-240@50-60	✓	see diagram	see diagram	3.60	240	0.5		0.5	18	3,000	3.5	50	20	10-500Hz; 2G	10	85.5	4.2	UL/CUL/TUV/CE	147053CF	259.95	173.99	152.99	
	190705CF	Mean Well	SP500-27	+27V@0-18A	486.0W	100-240@50-60	✓	see diagram	see diagram	3.65	200	0.5	⟷	0.5	18	3,000	3.5	50	20	10-500Hz; 2G	10	86.5	4.2	UL/CUL/TUV/CE	190705CF	259.95	173.99	152.99	
	161795CF	Mean Well	SP500-48	+48V@0-10A	480.0W	100-240@50-60	✓	see diagram	see diagram	3.60	300	0.5		0.5	18	3,000	3.5	50	20	10-500Hz; 2G	10	87	4.2	UL/CUL/TUV/CE	161795CF	259.95	173.99	152.99	
	202112CF	Mean Well	PSP-500-5	+5V@0-80A	400.0W	90-264@47-63	✓	see diagram	see diagram	2.91	100	2.0		0.5	20	3,000	1.0	50	15	10-500Hz; 2G	10	76	5.5	UL/CUL/TUV/CE	202112CF	261.95	210.99	196.99	
	190713CF	Mean Well	PSP-500-12	+12V@0-41.5A	498.0W	90-264@47-63	✓	see diagram	see diagram	3.62	150	0.5		0.3	20	3,000	1.0	50	15	10-500Hz; 2G	10	82	5.5	UL/CUL/TUV/CE	190713CF	261.95	210.99	196.99	
	202121CF	Mean Well	PSP-500-15	+15V@0-33A	498.0W	90-264@47-63	✓	see diagram	see diagram	3.60	150	0.5		0.3	20	3,000	1.0	50	15	10-500Hz; 2G	10	82	5.5	UL/CUL/TUV/CE	202121CF	261.95	210.99	196.99	
	190721CF	Mean Well	PSP-500-24	+24V@0-20.8A	499.2W	90-264@47-63	✓	see diagram	see diagram	3.63	150	0.5		0.2	20	3,000	1.0	50	15	10-500Hz; 2G	10	84	5.5	UL/CUL/TUV/CE	190721CF	261.95	210.99	196.99	
	190730CF	Mean Well	PSP-500-27	+27V@0-18.5A	499.5W	90-264@47-63	✓	see diagram	see diagram	3.63	150	0.5		0.2	20	3,000	1.0	50	15	10-500Hz; 2G	10	84	5.5	UL/CUL/TUV/CE	190730CF	261.95	210.99	196.99	
	190748CF	Mean Well	PSP-500-48	+48V@0-10.5A	504.0W	90-264@47-63	✓	see diagram	see diagram	3.67	200	0.5		0.2	20	3,000	1.0	50	15	10-500Hz; 2G	10	86	5.5	UL/CUL/TUV/CE	190748CF	261.95	210.99	196.99	
	217373CF	Mean Well	PSP-1000-5	+5V@0-145A	725.0W	90-264@47-63	✓	see www.Jameco.com		2.61	100	2.0		0.5	35	3,000	2.0	50	15	10-500Hz; 2G	10	76	10.4	UL/CUL/TUV/CE	217373CF	523.95	401.99	365.99	
	217365CF	Mean Well	PSP-1000-12	+12V@0-75A	900.0W	90-264@47-63	✓	see www.Jameco.com		3.24	150	0.5		0.3	35	3,000	2.0	50	15	10-500Hz; 2G	10	82	10.4	UL/CUL/TUV/CE	217365CF	523.95	401.99	365.99	
	231642CF	Mean Well	PSP-1000-13.5	+13.5V@0-67A	1000.0W	90-264@47-63	✓	see www.Jameco.com		3.65	150	0.5	⟷	0.3	40	3,000	2.0	50	15	10-500Hz; 2G	10	84	10.4	UL/CUL/TUV/CE	231642CF	523.95	401.99	365.99	
	231634CF	Mean Well	PSP-1000-15	+15V@0-60A	900.0W	90-264@47-63	✓	see www.Jameco.com		3.24	150	0.5		0.3	40	3,000	2.0	50	15	10-500Hz; 2G	10	84	10.4	UL/CUL/TUV/CE	231634CF	523.95	401.99	365.99	
	217357CF	Mean Well	PSP-1000-24	+24V@0-37.6A	902.4W	90-264@47-63	✓	see www.Jameco.com		3.25	150	0.5		0.2	35	3,000	2.0	50	15	10-500Hz; 2G	10	84	10.4	UL/CUL/TUV/CE	217357CF	523.95	401.99	365.99	
	231651CF	Mean Well	PSP-1000-27	+27V@0-33.6A	907.2W	90-264@47-63	✓	see www.Jameco.com		3.26	150	0.5		0.2	40	3,000	2.0	50	15	10-500Hz; 2G	10	86	10.4	UL/CUL/TUV/CE	231651CF	523.95	401.99	365.99	
	217349CF	Mean Well	PSP-1000-48	+48V@0-19A	912.0W	90-264@47-63	✓	see www.Jameco.com		3.28	200	0.5		0.2	35	3,000	2.0	50	15	10-500Hz; 2G	10	86	10.4	UL/CUL/TUV/CE	217349CF	523.95	401.99	365.99	
	231669CF	Mean Well	PSP-1500-5	+5V@0-217.5A	1087.5W	176-264@47-63	✓	see www.Jameco.com		2.76	100	2.0		0.5	100	3,000	3.5	50	15	10-500Hz; 2G	10	77	15.2	CUL/TUV/CE	231669CF	786.95	602.95	562.95	
	231677CF	Mean Well	PSP-1500-12	+12V@0-112.5A	1350.0W	176-264@47-63	✓	see www.Jameco.com		3.42	150	0.5		0.3	100	3,000	3.5	50	15	10-500Hz; 2G	10	84	15.2	CUL/TUV/CE	231677CF	786.95	602.95	562.95	
	231685CF	Mean Well	PSP-1500-13.5	+13.5V@0-100.5A	1356.75W	176-264@47-63	✓	see www.Jameco.com		3.44	150	0.5		0.3	100	3,000	3.5	50	15	10-500Hz; 2G	10	84	15.2	CUL/TUV/CE	231685CF	786.95	602.95	562.95	
	231693CF	Mean Well	PSP-1500-15	+15V@0-90.0A	1350.0W	176-264@47-63	✓	see www.Jameco.com		3.42	150	0.5		0.3	100	3,000	3.5	50	15	10-500Hz; 2G	10	84	15.2	CUL/TUV/CE	231693CF	786.95	602.95	562.95	
	231706CF	Mean Well	PSP-1500-24	+24V@0-56.4A	1353.6W	176-264@47-63	✓	see www.Jameco.com		3.43	150	0.5		0.2	100	3,000	3.5	50	15	10-500Hz; 2G	10	85	15.2	CUL/TUV/CE	231706CF	786.95	602.95	562.95	
	231714CF	Mean Well	PSP-1500-27	+27V@0-50.4A	1360.8W	176-264@47-63	✓	see www.Jameco.com		3.45	150	0.5	⟷	0.2	100	3,000	3.5	50	15	10-500Hz; 2G	10	85	15.2	CUL/TUV/CE	231714CF	786.95	602.95	562.95	
	231722CF	Mean Well	PSP-1500-48	+40V@0-28.5A	1368.0W	176-264@47-63	✓	see www.Jameco.com		3.47	200	0.5		0.2	100	3,000	3.5	50	15	10-500Hz; 2G	10	86	15.2	CUL/TUV/CE	231722CF	786.95	602.95	562.95	
	220249CF	Mean Well	SCN-600-05	+5V@0-100A	500.0W	90-130/180-260@47-63	—	see diagram	see diagram	3.10	100	2.0		0.5	60	1,500	3.5	50	16	10-200Hz; 2G	5	77	5.7	UL/CUL	220249CF	273.95	213.99	197.99	
	220257CF	Mean Well	SCN-600-12	+12V@0-50A	600.0W	90-130/180-260@47-63	—	see diagram	see diagram	3.72	120	1.0		0.5	60	1,500	3.5	50	16	10-200Hz; 2G	5	80	5.7	UL/CUL	220257CF	273.95	213.99	197.99	
	220265CF	Mean Web	SCN-600-24	+24V@0-25A	600.0W	90-130/180-260@47-63	—	see diagram	see diagram	3.72	240	1.0		0.5	60	1,500	3.5	50	16	10-200Hz; 2G	5	85	5.7	UL/CUL	220265CF	273.95	213.99	197.99	

Other Versions Available: Call 800-831-4242

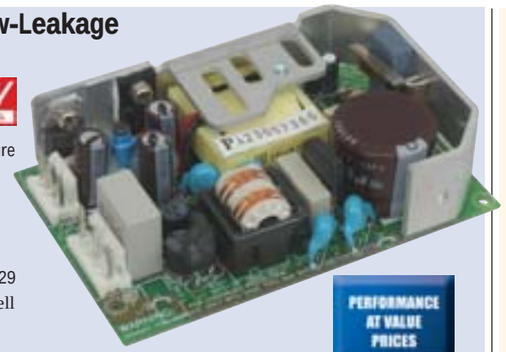
New

* Primary Output

25 to 110-Watt Medical Switching DC Power Supplies

30-Watt Open Frame Low-Leakage

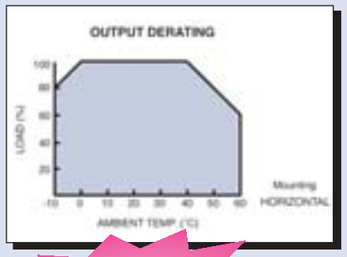
MPS-30 Series: Single Output

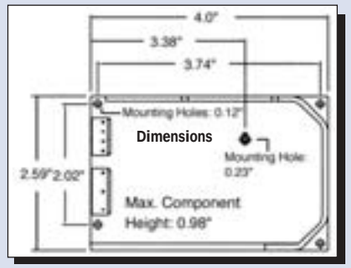


- 100% full load burn-in test
- 105˚C output capacitor
- Universal AC input
- High-efficiency, low working temperature
- -10˚C to + 50˚C working temperature (see derating curve)
- 2.9 watts/in³ maximum
- Three-year warranty
- Mating connectors: P/Ns 104723CF & P/N 104432CF, pg 129

PERFORMANCE AT VALUE PRICES

Detailed below in blue, the Mean Well MPS-30 medical power supplies are low cost, high reliability open frame power supplies that feature a low leakage current of 0.3mA@264VAC. Other features of this open frame power supply are: universal input of 88-264VAC as well as 120-370VDC for battery-supported applications. Protections include short-circuit, overload, and over-voltage. They are UL and TUV approved, and carry a CE mark for use worldwide.

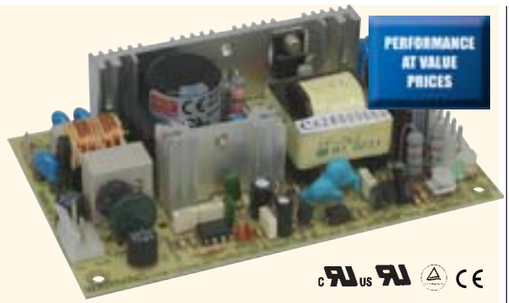




NEW Medical Table-Top Power Supplies & Wall Adapters on Page 53

45 & 65-Watt Open Frame Low Leakage

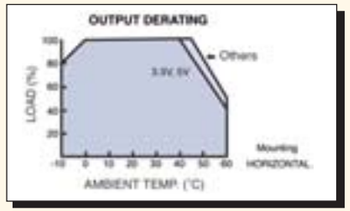
MPS-45 & MPS-65 Series: Single Output

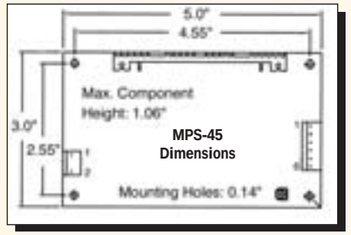


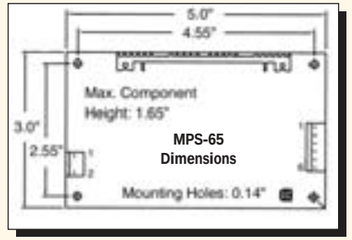
PERFORMANCE AT VALUE PRICES

- 100% full load burn-in test
- 105˚C output capacitor
- Universal AC input
- High-efficiency, low working temperature
- -10˚C to + 60˚C working temperature (refer to derating curve)
- 2.9 watts/in³ maximum
- Three-year warranty
- Soft-start circuit, limiting AC surge current
- Mating connectors: P/Ns 104432CF & 104731CF, pg 129

Shown below in this color, the MeanWell MPS-45 & MPS-65 medical power supplies are low cost, high reliability open frame power supplies that feature a low leakage current of 0.3mA@264VAC. Other features of these power supplies are: universal input of 88-264VAC, as well as 120-370VDC for battery-applications. Full rated power is available with 18CFM forced air convection applied. Protections include short-circuit, overload, and over-voltage. They are approved by UL and TUV, and carry a CE mark for use worldwide.

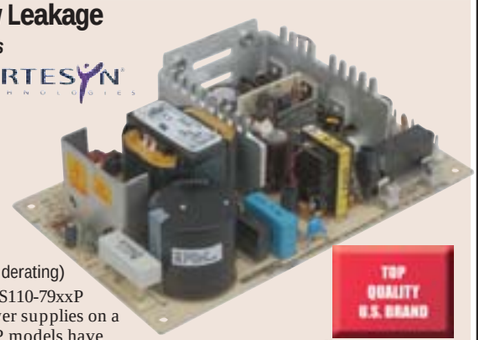






110-Watt Open Frame Low Leakage

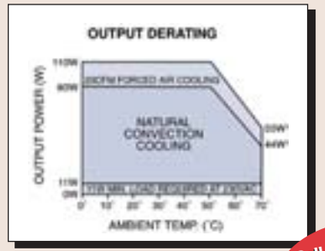
NFS110-79xxP Series: Quad Outputs

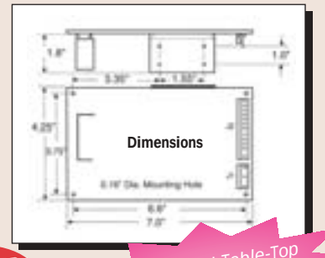


- 100% full-load burn-in
- Universal AC input
- 110W with 20 CFM of air
- 2.1 watts/in³ maximum
- 1U Package: 7" x 4.25" x 1.8"
- Two-year warranty
- Mating connectors: P/Ns 104723CF, 104766CF & 104432CF, pg 129
- Medical Safety approval
- 0˚C to +70˚C working temp. (see output derating)

TOP QUALITY U.S. BRAND

Detailed below in blue, the Artesyn NFS110-79xxP series are 110-watt universal-input power supplies on a 7" x 4.25" x 1.8" card. The NFS110-79xxP models have proven to be highly reliable and versatile for a wide range of communication and industrial applications, with a very high peak current capability on each output for drive and motor applications. The NFS110-79xxP series features safety leakage current of less than 100µA at 264VAC and isolation voltage of 4000VAC. These models have full medical safety approval to EN60601 and UL2601, and meet conducted emissions requirements of EN55022 level A. They are designed for use in low power medical, dental and laboratory applications.





Call for LOWER PRICES on Larger Quantities

NEW Medical Table-Top Power Supplies & Wall Adapters on Page 53

Jameco Part No.	Manufacturer	Manufacturer Product Number	Output Voltage@Current (min-max)	Output Power	Input (VAC @ Hz)	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Power Density (W/in³)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*		Line Reg. (±%)*	Inrush Curr. (A@ 120VAC)	Isolation Voltage (VAC)	Leakage Current (mA@240V)	Rise Time (ms)	Hold-up Time (ms)	Vibration	Voltage Adjustment (%)*	Efficiency (%)	Weight (lbs.)	Certification	Jameco Part No.	Price 1	Price 10	Price 25
Open Frame																										
220978CF	Mean Well	MPS-30-5	+5@0-5A	25.0W	88-264@47-63	4.0x2.59x0.98	3.74x2.02x0.12	2.40	80	2.0		1.0	35	4,000	0.3	30	10	10-500Hz; 2G	—	72	0.3	UL/CUL/TUV/CE	220978CF	$36.95	$31.95	$27.99
220986CF	Mean Well	MPS-30-12	+12@0-2.5A	30.0W	88-264@47-63	4.0x2.59x0.98	3.74x2.02x0.12	2.88	120	1.0		1.0	35	4,000	0.3	30	10	10-500Hz; 2G	—	75	0.3	UL/CUL/TUV/CE	220986CF	36.95	31.99	27.99
220994CF	Mean Well	MPS-30-15	+15@0-2A	30.0W	88-264@47-63	4.0x2.59x0.98	3.74x2.02x0.12	2.88	150	1.0		0.5	35	4,000	0.3	30	10	10-500Hz; 2G	—	76	0.3	UL/CUL/TUV/CE	220994CF	36.95	31.99	27.99
221006CF	Mean Well	MPS-30-24	+24@0-1.2A	28.8W	88-264@47-63	4.0x2.59x0.98	3.74x2.02x0.12	2.77	240	1.0		0.5	35	4,000	0.3	30	10	10-500Hz; 2G	—	77	0.3	UL/CUL/TUV/CE	221006CF	36.95	31.99	27.99
221014CF	Mean Well	MPS-30-27	+27@0-1.1A	29.7W	88-264@47-63	4.0x2.59x0.98	3.74x2.02x0.12	2.86	240	1.0	⟷	0.5	35	4,000	0.3	30	10	10-500Hz; 2G	—	78	0.3	UL/CUL/TUV/CE	221014CF	36.95	31.99	27.99
221022CF	Mean Well	MPS-30-48	+48@0-0.6A	28.8W	88-264@47-63	4.0x2.59x0.98	3.74x2.02x0.12	2.77	240	1.0		0.5	35	4,000	0.3	30	10	10-500Hz; 2G	—	78	0.3	UL/CUL/TUV/CE	221022CF	36.95	31.99	27.99
221031CF	Mean Well	MPS-45-3.3	+3.3@0-8A	26.4W	90-264@47-440	5.0x3.0x1.06	4.55x2.55x0.14	1.60	80	3.0		1.0	20	4,000	0.3	30	12	10-500Hz; 2G	10	65	0.5	UL/CUL/TUV/CE	221031CF	37.95	30.99	26.99
221049CF	Mean Well	MPS-45-5	+5@0-8A	40.0W	90-264@47-440	5.0x3.0x1.06	4.55x2.55x0.14	2.42	100	3.0		1.0	20	4,000	0.3	30	12	10-500Hz; 2G	10	72	0.5	UL/CUL/TUV/CE	221049CF	37.95	30.99	26.99
221057CF	Mean Well	MPS-45-7.5	+7.5@0-5.4A	40.5W	90-264@47-440	5.0x3.0x1.06	4.55x2.55x0.14	2.45	100	3.0		1.0	20	4,000	0.3	30	12	10-500Hz; 2G	10	75	0.5	UL/CUL/TUV/CE	221057CF	37.95	30.99	26.99
221065CF	Mean Well	MPS-45-12	+12@0-3.7A	44.4W	90-264@47-440	5.0x3.0x1.06	4.55x2.55x0.14	2.69	100	2.0		1.0	20	4,000	0.3	30	12	10-500Hz; 2G	10	76	0.5	UL/CUL/TUV/CE	221065CF	37.95	30.99	26.99
221073CF	Mean Well	MPS-45-13.5	+13.5@0-3.3A	44.6W	90-264@47-440	5.0x3.0x1.06	4.55x2.55x0.14	2.70	100	2.0		1.0	20	4,000	0.3	30	12	10-500Hz; 2G	10	76	0.5	UL/CUL/TUV/CE	221073CF	37.95	30.99	26.99
221081CF	Mean Well	MPS-45-15	+15@0-3A	45.0W	90-264@47-440	5.0x3.0x1.06	4.55x2.55x0.14	2.73	100	2.0		1.0	20	4,000	0.3	30	12	10-500Hz; 2G	10	77	0.5	UL/CUL/TUV/CE	221081CF	37.95	30.99	26.99
221090CF	Mean Well	MPS-45-24	+24@0-1.9A	45.6W	90-264@47-440	5.0x3.0x1.06	4.55x2.55x0.14	2.76	100	2.0		1.0	20	4,000	0.3	30	12	10-500Hz; 2G	10	78	0.5	UL/CUL/TUV/CE	221090CF	37.95	30.99	26.99
221102CF	Mean Well	MPS-45-27	+27@0-1.7A	45.9W	90-264@47-440	5.0x3.0x1.06	4.55x2.55x0.14	2.78	100	2.0	⟷	1.0	20	4,000	0.3	30	12	10-500Hz; 2G	10	78	0.5	UL/CUL/TUV/CE	221102CF	37.95	30.99	26.99
221111CF	Mean Well	MPS-45-48	+48@0-1A	48.0W	90-264@47-440	5.0x3.0x1.06	4.55x2.55x0.14	2.91	100	2.0		1.0	20	4,000	0.3	30	12	10-500Hz; 2G	10	78	0.5	UL/CUL/TUV/CE	221111CF	37.95	30.99	26.99
221129CF	Mean Well	MPS-65-3.3	+3.3@0-12A	39.6W	90-264@47-440	5.0x3.0x1.65	4.55x2.55x0.14	1.65	80	3.0		1.0	20	4,000	0.3	30	12	10-500Hz; 2G	10	66	0.6	UL/CUL/TUV/CE	221129CF	36.95	31.99	27.99
221137CF	Mean Well	MPS-65-5	+5@0-12A	60.0W	90-264@47-440	5.0x3.0x1.65	4.55x2.55x0.14	2.50	100	3.0		1.0	20	4,000	0.3	30	12	10-500Hz; 2G	10	74	0.6	UL/CUL/TUV/CE	221137CF	36.95	31.99	27.99
221145CF	Mean Well	MPS-65-7.5	+7.5@0-8A	60.0W	90-264@47-440	5.0x3.0x1.65	4.55x2.55x0.14	2.50	100	3.0		1.0	20	4,000	0.3	30	12	10-500Hz; 2G	10	76	0.6	UL/CUL/TUV/CE	221145CF	36.95	31.99	27.99
221153CF	Mean Well	MPS-65-12	+12@0-5.2A	62.4W	90-264@47-440	5.0x3.0x1.65	4.55x2.55x0.14	2.60	100	2.0		1.0	20	4,000	0.3	30	12	10-500Hz; 2G	10	77	0.6	UL/CUL/TUV/CE	221153CF	36.95	31.99	27.99
221161CF	Mean Well	MPS-65-13.5	+13.5@0-4.7A	63.5W	90-264@47-440	5.0x3.0x1.65	4.55x2.55x0.14	2.65	100	2.0		1.0	20	4,000	0.3	30	12	10-500Hz; 2G	10	78	0.6	UL/CUL/TUV/CE	221161CF	36.95	31.99	27.99
221170CF	Mean Well	MPS-65-15	+15@0-4.2A	63.0W	90-264@47-440	5.0x3.0x1.65	4.55x2.55x0.14	2.63	100	2.0		1.0	20	4,000	0.3	30	12	10-500Hz; 2G	10	79	0.6	UL/CUL/TUV/CE	221170CF	36.95	31.99	27.99
221188CF	Mean Well	MPS-65-24	+24@0-2.7A	64.8W	90-264@47-440	5.0x3.0x1.65	4.55x2.55x0.14	2.70	100	2.0		1.0	20	4,000	0.3	30	12	10-500Hz; 2G	10	80	0.6	UL/CUL/TUV/CE	221188CF	36.95	31.99	27.99
221196CF	Mean Well	MPS-65-27	+27@0-2.4A	64.8W	90-264@47-440	5.0x3.0x1.65	4.55x2.55x0.14	2.70	100	2.0		1.0	20	4,000	0.3	30	12	10-500Hz; 2G	10	80	0.6	UL/CUL/TUV/CE	221196CF	36.95	31.99	27.99
221209CF	Mean Well	MPS-65-48	+48@0-1.35A	64.8W	90-264@47-440	5.0x3.0x1.65	4.55x2.55x0.14	2.70	100	2.0	⟷	1.0	20	4,000	0.3	30	12	10-500Hz; 2G	10	80	0.6	UL/CUL/TUV/CE	221209CF	36.95	31.99	27.99
220222CF	Artesyn	NFS110-7901P	5.1V@0-8; 12V@0-4.5A; -5V@0-0.5A; -12V@0-0.5A	110W	90-253@47-440	7.0x4.25x1.8	6.6x3.75x0.156	2.05	50	—		0.1	17	4,000	0.1	—	17	5-500Hz; 2.4G	3	70	1.3	UL/CSA/VDE/CE	220222CF	~~$131.15~~ 109.95	98.99	89.95
220214CF	Artesyn	NFS110-7902P	5.1V@0-8A; 12V@0-4.5A; 24V@0-3.5A; -12V@0-0.5A	110W	90-253@47-440	7.0x4.25x1.8	6.6x3.75x0.156	2.05	50	—		0.1	17	4,000	0.1	—	17	5-500Hz; 2.4G	3	70	1.3	UL/CSA/VDE/CE	220214CF	~~$131.15~~ 109.95	98.99	89.95

Other Versions Available: Call 800-831-4242

* Primary Output

0.5 & 1-Watt Regulated Encapsulated

SRS05 & SPR01 Series: Single Output

- 1000VDC isolation
- Protection: short-circuit
- 100% burn-in test
- Very high MTBF
- Working temperature: -15 to +60˚C @ full load; -25 to +71˚C @ 80% load
- Input filter: capacitor type
- No external components needed
- One-year warranty

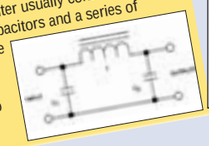


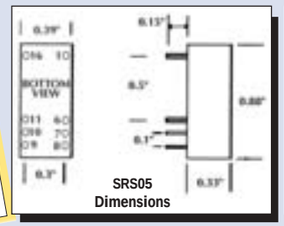
PERFORMANCE AT VALUE PRICES

Detailed below in blue, the Mean Well SRS05 and SPR01 series are low-cost, highly reliable, low-power, regulated 0.5-watt and 1.0- watt DC-to-DC converters that are easy to use because no external components are required. Internally they employ high-density SMD technology and are packaged in a non-conductive plastic case for safety. The input-to-output isolation is an impressive 1000VDC, with I/O isolation resistance of 100MΩ and capacitance of 80pF maximum. Short-circuit protection is a standard feature and electrical noise is minimized with a capacitor-type input filter. Line and load regulation are both ±1%.

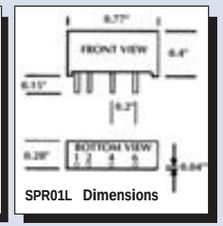
UNDERSTANDING CONVERTERS #1

PI-FILTER: A commonly used filter at the input of a switching supply or DC/DC converter to reduce reflected ripple current. The filter usually consists of two parallel capacitors and a series of inductance and is generally built into supply.





SRS05 Dimensions



SPR01L Dimensions

1-Watt Unregulated Encapsulated

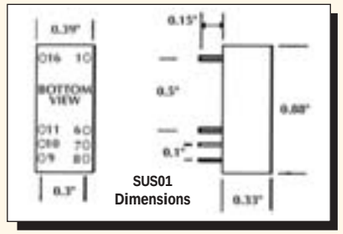
SUS01 Series: Single Output

- 1000VDC isolation
- Input filter: capacitor type
- Protection: short-circuit
- No external components needed
- 100% burn-in test
- One-year warranty
- Very high MTBF
- Working temperature: -15 to +60˚C @ full load; -25 to +71˚C @ 80% load

Shown below in buff color, our lowest price Mean Well DC-to-DC converter is the unregulated 1.0-watt SUS01. It requires no external components and features a capacitor-type input filter for minimum noise. SMD technology is employed for superior reliability and small size. The input-to-output isolation is an impressive 1000VDC, with I/O isolation resistance of 100MΩ and capacitance of 80pF maximum. Adequate for many applications, line regulation is ±1.2% and load regulation from 20% to 100% of full load is ±8%. The dual-in-line non-conductive plastic package makes the SUS01 easy to design in. The working temperature is –15˚C to +60C with no derating and –25˚C to +71˚C at 80% load.



PERFORMANCE AT VALUE PRICES



SUS01 Dimensions

3 & 5-Watt Regulated Encapsulated

DCW03, SCW03, DLW05 & SLW05 Series: Single & Dual Outputs

- 1000VDC isolation
- No external components needed
- 2:1 wide input range
- 100% burn-in test
- Free-air convection cooling
- Protection: short-circuit & overload
- Working temperature: -15 to +60˚C @ full load; -25 to +71˚C @ 80% load
- Input filter: Pi network
- Industry standard package
- Shielded metal case
- One-year warranty
- Very high MTBF

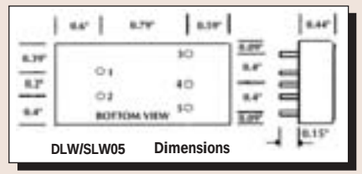
PERFORMANCE AT VALUE PRICES



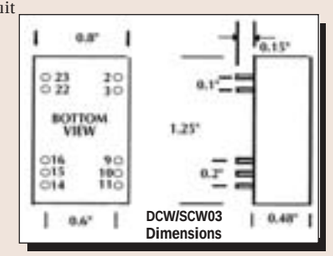
Highlighted below in tan, these popular regulated DC-to-DC converters performance features include a wide input voltage range of 2:1 and the use of a pi-network input filter for low noise operation. The input-to-output isolation is an impressive 1000VDC, with I/O isolation resistance of 100MΩ.

The Mean Well SCW03 and DCW03 families include single and dual-output 3-watt configurations packaged in five-sided shielded metal cases. The industry-standard package size supports full power with free-air convection.

Offering both single and dual outputs, the Mean Well SLW05 & DLW05 5-watt series are very popular because of their low-cost, reliability, and industry-standard package comprised of a six-sided shielded metal case. Continuous short-circuit protection and overload protection, both with auto-recovery, are standard features.



DLW/SLW05 Dimensions



DCW/SCW03 Dimensions

Jameco Number	Manufacturer	Manufacturer Product Number	Input Range	Output Voltage@Current	Output Power	Size Inches (LxWxH)	Power Density (W/in³)	Pins		Ripple & Noise (mV p-p)	Line Reg. (±%)	Load Reg. (±%)	Switching Frequency (Hz)	Isolation Voltage	Temperature ˚C	Efficiency (%)	Weight (lbs.)	Jameco Number	Price 1	Price 10	Price 25	Price 100
213225CF	Mean Well	SRS-0505	4.5-5.5V	+5V@100mA	0.5W	0.88x0.39x0.33	4.63	8		100	1.0	1.0	500k	1,000	-15 to +60	62	0.01	**213225CF**	$7.95	$7.19	$6.45	$5.85
213313CF	Mean Well	SPR01L-05	4.5-5.5V	+5V@200mA	1.0W	0.77x0.28x0.4	17.86	4		100	1.0	1.0	100k	1,000	-15 to +60	57	0.01	**213313CF**	9.95	8.95	8.09	7.28
216830CF	Mean Well	SPR01L-12	4.5-5.5V	+12V@84mA	1.0W	0.77x0.28x0.4	17.86	4		100	1.0	1.0	100k	1,000	-15 to +60	61	0.01	**216830CF**	9.95	8.95	8.09	7.28
216848CF	Mean Well	SPR01L-15	4.5-5.5V	+15V@67mA	1.0W	0.77x0.28x0.4	17.86	4	⟷	100	1.0	1.0	100k	1,000	-15 to +60	62	0.01	**216848CF**	9.95	8.95	8.09	7.28
213250CF	Mean Well	SPR01N-05	21.6-26.4V	+5V@200mA	1.0W	0.77x0.28x0.4	17.86	4		100	1.0	1.0	100k	1,000	-15 to +60	62	0.01	**213250CF**	7.95	7.19	6.45	5.85
213241CF	Mean Well	SUS01L-05	4.5-5.5V	+5V@200mA	1.0W	0.88x0.39x0.33	9.26	8		100	8.0	1.2	100k	1,000	-15 to +60	73	0.01	**213241CF**	7.95	7.29	6.49	5.85
213268CF	Mean Well	SCW03A-05	9-18V	+5V@600mA	3.0W	1.25x0.8x0.48	2.08	10		100	1.0	0.5	25k	1,000	-15 to +60	74	0.03	**213268CF**	15.49	13.95	12.59	11.29
213217CF	Mean Well	SCW03B-05	18-36V	+5V@600mA	3.0W	1.25x0.8x0.48	6.25	10		100	1.0	0.5	25k	1,000	-15 to +60	75	0.03	**213217CF**	15.49	13.95	12.59	11.39
155918CF	Mean Well	DCW03A-05	9-18V	+5V@300mA; -5V@300mA	3.0W	1.25x0.8x0.48	7.14	10		100	1.0	0.5	25k	1,000	-15 to +60	74	0.03	**155918CF**	20.95	18.89	16.99	15.29
161701CF	Mean Well	DCW03A-12	9-18V	+12V@125mA; -12V@125mA	3.0W	1.25x0.8x0.48	5.77	10		100	1.0	0.5	25k	1,000	-15 to +60	80	0.03	**161701CF**	20.95	18.89	16.99	15.29
220388CF	Mean Well	SLW05L-12	4.5-9V	+12V@417mA	5.0W	1.98x0.99x0.44	6.25	5		100	0.2	0.5	50k	1,000	-15 to +60	70	0.07	**220388CF**	24.95	22.49	20.25	18.25
220370CF	Mean Well	SLW05L-15	4.5-9V	+15V@333mA	5.0W	1.98x0.99x0.44	6.25	5		100	0.2	0.5	50k	1,000	-15 to +60	72	0.07	**220370CF**	24.95	22.49	20.25	18.25
220353CF	Mean Well	SLW05A-033	9-18V	+3.3V@1500mA	5.0W	1.98x0.99x0.44	6.25	5	⟷	100	0.2	0.5	50k	1,000	-15 to +60	70	0.07	**220353CF**	24.95	22.49	20.25	18.25
216928CF	Mean Well	SLW05A-05	9-18V	+5V@1000mA	5.0W	1.98x0.99x0.44	6.25	5		100	1.0	0.2	50k	1,000	-15 to +60	75	0.07	**216928CF**	24.95	22.49	20.25	18.25
216899CF	Mean Well	SLW05A-12	9-18V	+12V@417mA	5.0W	1.98x0.99x0.44	6.25	5		100	1.0	0.2	50k	1,000	-15 to +60	80	0.07	**216899CF**	24.95	22.49	20.25	18.25
216881CF	Mean Well	SLW05A-15	9-18V	+15V@333mA	5.0W	1.98x0.99x0.44	6.25	5		100	1.0	0.2	50k	1,000	-15 to +60	81	0.07	**216881CF**	24.95	22.49	20.25	18.25
220361CF	Mean Well	SLW05B-033	18-36V	+3.3V@1500mA	5.0W	1.98x0.99x0.44	6.25	5		100	0.2	0.5	50k	1,000	-15 to +60	71	0.07	**220361CF**	24.95	22.49	20.25	18.25
216936CF	Mean Well	SLW05B-05	18-36V	+5V@1000mA	5.0W	1.98x0.99x0.44	6.25	5		100	1.0	0.2	50k	1,000	-15 to +60	77	0.07	**216936CF**	24.95	22.49	20.25	18.25
216910CF	Mean Well	SLW05B-12	18-36V	+12V@417mA	5.0W	1.98x0.99x0.44	6.25	5		100	1.0	0.2	50k	1,000	-15 to +60	82	0.07	**216910CF**	24.95	22.49	20.25	18.25
216872CF	Mean Well	SLW05B-15	18-36V	+15V@333mA	5.0W	1.98x0.99x0.44	6.25	5		100	1.0	0.2	50k	1,000	-15 to +60	83	0.07	**216872CF**	24.95	22.49	20.25	18.25
213233CF	Mean Well	SLW05C-05	36-72V	+5V@1000mA	5.0W	1.98x0.99x0.44	6.25	5	⟷	100	1.0	0.2	50k	1,000	-15 to +60	77	0.07	**213233CF**	19.95	17.99	16.19	14.55
216901CF	Mean Well	SLW05C-12	36-72V	+12V@417mA	5.0W	1.98x0.99x0.44	6.25	5		100	1.0	0.2	50k	1,000	-15 to +60	83	0.07	**216901CF**	24.95	22.49	20.25	18.25
216856CF	Mean Well	DLW05A-12	9-18V	+12V@208mA; -12V@208mA	5.0W	1.98x0.99x0.44	6.25	5		100	2.0	0.2	50k	1,000	-15 to +60	80	0.07	**216856CF**	28.95	26.09	23.15	20.85
216864CF	Mean Well	DLW05B-12	18-36V	+12V@208mA; -12V@208mA	5.0W	1.98x0.99x0.44	6.25	5		100	2.0	0.2	50k	1,000	-15 to +60	82	0.07	**216864CF**	28.95	26.09	23.15	20.85

Encapsulated

Other Versions Available: Call 800-831-4242

Limited Supply – Special Offers – 90-Day Warranty

Jameco Number	Manufacturer	Manufacturer Product Number	Input Range	Output Voltage@Current	Output Power	Size Inches (LxWxH)	Power Density (W/in³)	Pins		Ripple & Noise (mV p-p)	Line Reg. (±%)	Load Reg. (±%)	Switching Frequency (Hz)	Isolation Voltage	Temperature ˚C	Efficiency (%)	Weight (lbs.)	Jameco Number	Price 1	Price 10	Price 25	Price 100
206076CF	Trimag	TDB4W-4805S	36-72V	+5V@500mA	3.0W	1.2x0.8x0.5	6.25	12	⟷	50	1.0	1.0	25k	500	-25 to +70	70	0.03	**206076CF**	~~$13.95~~ $9.95	$8.99	$8.09	$7.25
206092CF	Universal Microelectronics	UM1014	36-72V	+5V@250mA; -5V@250mA	3.0W	1.2x0.8x0.4	7.81	14		100	0.5	0.2	200k	1,000	-25 to +71	77	0.03	**206092CF**	~~$15.95~~ 7.95	7.19	6.45	5.85

Encapsulated

Color Code Legend: New Sale Qty Save

New Lower Prices Marked in Red

10 to 15-Watt Isolated DC-to-DC Converters

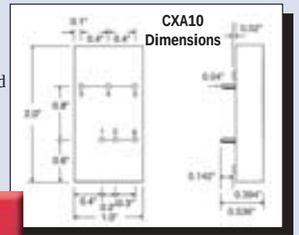
10-Watt Open Frame

CXA10 Series: Single Output

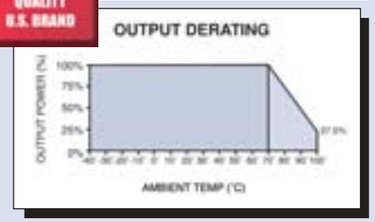


- 1500VDC isolation
- Industry standard footprint
- Protection: short-circuit & overload
- 100% burn-in test
- Two-year warranty
- Very high MTBF
- Remote ON/OFF
- Low ripple & noise
- 4:1 input voltage range
- Working temperature: -40 to +100˚C (see derating curve)

Detailed below in blue, the CXA10 series has a wide 4:1 input voltage range of 18 to 75 VDC. The CXA10 has been designed as a competitive open-frame alternative for the communications market, featuring an industry-standard footprint of 2" x 1" x 0.4". Other important product features include over-voltage protection, short-circuit protection and remote ON/OFF. Planar magnetics are used in the design to improve reliability and reduce the profile. The series has full international safety approval to EN60950 and UL1950, reducing system compliance costs. The basic insulation system from input to output makes it suitable for a wide variety of applications.



TOP QUALITY U.S. BRAND



UNDERSTANDING CONVERTERS #2

OTP: OVER-TEMPERATURE PROTECTION A protection system for converters where the converter shuts down if the ambient temperature exceeds the converters ratings. OTP is intended to save the converter and any down-stream equipment in the event of a catastrophic failure of a fan or such. OTP usually measures the hottest item on board the converter rather than ambient temperature.

15-Watt Open Frame

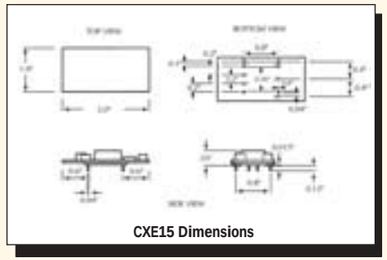
CXE15 Series: Single Output



- 1500VDC isolation
- Industry standard footprint
- Protection: over-voltage & over-current
- 100% burn-in test
- Two-year warranty
- Remote ON/OFF
- Low ripple & noise
- 87% efficiency at 5V
- No minimum load
- Output trim
- Planar magnetics technology
- Working temperature: -40˚ to +65˚C

Highlighted below in buff color, the CXE15 is a high-efficiency, open-frame, isolated 15-watt DC-to-DC converter series in an industry standard footprint. They feature an input voltage range of 33 to 75VDC and are available in output voltages of 1.8V, 2.5V, 3.3V, and 5V. The output voltage on each model is adjustable from 90% to 110% of the nominal value. With full international safety approval including EN60950 and UL1950, the CXE15 reduces compliance cost and time to market.

TOP QUALITY U.S. BRAND



10-Watt Encapsulated

SKE10 & DKE10 Series: Single & Dual Outputs

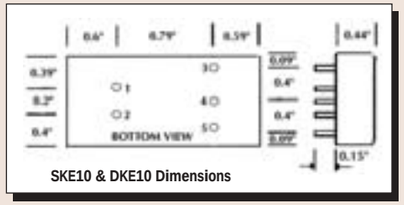


- 1000VDC isolation
- Input filter: Pi-network
- Protection: short-circuit & overload
- 100% burn-in test
- One-year warranty
- Very high MTBF
- Free-air convection cooling
- Shielded metal case
- Industry standard package
- 2:1 wide input range
- Working temperature: -15 to +60˚C @ full load; -25 to +71˚C @ 80% load

Highlighted below in tan, the Mean Well SKE10 & DKE10 families of regulated DC-to-DC converters include popular single and dual-output 10-watt configurations packaged in six-sided shielded metal cases. The industry-standard package size supports full power with free-air convection. Performance features include a wide input voltage range of 2:1 and the use of a pi-network input filter for low noise operation. The input-to-output isolation is an impressive 1000VDC, with I/O isolation resistance of 100MΩ. Line regulation is ±0.3% maximum, and load regulation for a load change of 20% to full load is ±1% for single output and ±2% for dual output. The working temperature is –15˚C to +60˚C with no derating and –25˚C to +71˚C at 80% load. Protection includes short-circuit and overload.

UNDERSTANDING CONVERTERS #3

DPA: DISTRIBUTED POWER ARCHITECTURE. This is a power distribution system where the conversion to lower voltages is done locally near the load. An interim DC voltage is provided from the AC mains by a Front-End. This is then distributed to smaller DC-DC converters spread throughout the system where they are required.



	Jameco Number	Manufacturer	Manufacturer Product Number	Input Range	Output Voltage@Current	Output Power	Size Inches (LxWxH)	Power Density (W/in³)	Pins		Ripple & Noise (mV p-p)	Line Reg. (±%)	Load Reg. (±%)	Switching Frequency (Hz)	Isolation Voltage	Temperature ˚C	Efficiency (%)	Weight (lbs.)	Certification	Jameco Number	Price 1	Price 10	Price 25	Price 100	
Open Frame	219037CF	Artesyn	CXA10-48S3V3	18-75V	+3.3V@2400mA	7.9W	2.0x1.0x0.536	9.9	6		30	0.1	0.2	400k	1,500	-40 to +70	78	0.03	UL/CUL/CSA/VDE/CE	219037CF	$41.45	$39.39	$37.39	$35.59	Open Frame
	219045CF	Artesyn	CXA10-48S05	18-75V	+5.0V@2000mA	10.0W	2.0x1.0x0.536	12.5	6		30	0.1	0.2	400k	1,500	-40 to +70	81	0.03	UL/CUL/CSA/VDE/CE	219045CF	41.45	39.39	37.39	35.59	
	219070CF	Artesyn	CXE15-48S1V8	33-75V	+1.8V@6000mA	10.8W	2.0x1.0x0.35	13.5	6		40	0.3	2.0	265k	1,500	-40 to +70	83	0.03	UL/CUL/TUV/CE	219070CF	44.85	42.95	40.49	38.49	
	219088CF	Artesyn	CXE15-48S2V5	33-75V	+2.5V@6000mA	15.0W	2.0x1.0x0.35	18.8	6	⟷	40	0.3	1.5	265k	1,500	-40 to +70	85	0.03	UL/CUL/TUV/CE	219088CF	44.85	42.95	40.49	38.49	
	219053CF	Artesyn	CXE15-48S3V3	33-75V	+3.3V@4500mA	15.0W	2.0x1.0x0.35	18.8	6		70	0.1	0.5	265k	1,500	-40 to +65	86	0.03	UL/CUL/TUV/CE	219053CF	44.85	42.95	40.49	38.49	
	219061CF	Artesyn	CXE15-48S05V	33-75V	+5V@3000mA	15.0W	2.0x1.0x0.35	18.8	6		70	0.1	0.5	265k	1,500	-40 to +65	87	0.03	UL/CUL/TUV/CE	219061CF	44.85	42.95	40.49	38.49	
Encapsulated	216961CF	Mean Well	SKE10A-05	9-18V	+5V@2000mA	10.0W	1.98x0.99x0.44	12.5	5		50	0.3	1.0	300k	500	-15 to +60	81	0.07	—	216961CF	33.95	30.55	26.95	24.55	Encapsulated
	217007CF	Mean Well	SKE10A-12	9-18V	+12V@840mA	10.0W	1.98x0.99x0.44	12.5	5		60	0.3	1.0	300k	500	-15 to +60	81	0.07	—	217007CF	33.95	30.55	26.95	24.55	
	216979CF	Mean Well	SKE10A-15	9-18V	+15V@666mA	10.0W	1.98x0.99x0.44	12.5	5		60	0.3	1.0	300k	500	-15 to +60	81	0.07	—	216979CF	33.95	30.55	26.95	24.55	
	220337CF	Mean Well	SKE10B-033	18-36V	+3.3V@2400mA	8.0W	1.98x0.99x0.44	10.0	5		50	0.3	0.5	200k	1,000	-15 to +60	76	0.07	—	220337CF	33.95	30.55	26.95	24.55	
	216952CF	Mean Well	SKE10B-05	18-36V	+5V@2000mA	10.0W	1.98x0.99x0.44	12.5	5		50	0.3	0.5	250k	1,000	-15 to +60	79	0.07	—	216952CF	33.95	30.55	26.95	24.55	
	217023CF	Mean Well	SKE10B-12	18-36V	+12V@840mA	10.0W	1.98x0.99x0.44	12.5	5		60	0.3	0.5	250k	1,000	-15 to +60	83	0.07	—	217023CF	33.95	30.55	26.95	24.55	
	216995CF	Mean Well	SKE10B-15	18-36V	+15V@666mA	10.0W	1.98x0.99x0.44	12.5	5	⟷	60	0.3	0.5	250k	1,000	-15 to +60	83	0.07	—	216995CF	33.95	30.55	26.95	24.55	
	220345CF	Mean Well	SKE10C-033	36-72V	+3.3V@2400mA	8.0W	1.98x0.99x0.44	10.0	5		50	0.3	0.5	200k	1,000	-15 to +60	76	0.07	—	220345CF	33.95	30.55	26.95	24.55	
	216944CF	Mean Well	SKE10C-05	36-72V	+5V@2000mA	10.0W	1.98x0.99x0.44	12.5	5		50	0.3	1.0	250k	1,000	-15 to +60	80	0.07	—	216944CF	33.95	30.55	26.95	24.55	
	217015CF	Mean Well	SKE10C-12	36-72V	+12V@840mA	10.0W	1.98x0.99x0.44	12.5	5		60	0.3	1.0	250k	1,000	-15 to +60	82	0.07	—	217015CF	33.95	30.55	26.95	24.55	
	216987CF	Mean Well	SKE10C-15	36-72V	+15V@666mA	10.0W	1.98x0.99x0.44	12.5	5		60	0.3	1.0	250k	1,000	-15 to +60	82	0.07	—	216987CF	33.95	30.55	26.95	24.55	
	217031CF	Mean Well	DKE10A-05	9-18V	+5V@1000mA; -5V@1000mA	10.0W	1.98x0.99x0.44	12.5	5		50	0.3	0.5	250k	1,000	-15 to +60	78	0.07	—	217031CF	34.95	31.45	27.95	25.45	
	217091CF	Mean Well	DKE10A-12	9-18V	+12V@420mA; -12V@420mA	10.0W	1.98x0.99x0.44	12.5	5		60	0.3	0.5	250k	1,000	-15 to +60	80	0.07	—	217091CF	34.95	31.45	27.95	25.45	
	217111CF	Mean Well	DKE10A-15	9-18V	+15V@333mA; -15V@333mA	10.0W	1.98x0.99x0.44	12.5	5		60	0.3	0.5	250k	1,000	-15 to +60	82	0.07	—	217111CF	34.95	31.45	27.95	25.45	
	217058CF	Mean Well	DKE10B-05	18-36V	+5V@1000mA; -5V@1000mA	10.0W	1.98x0.99x0.44	12.5	5		50	0.3	0.5	250k	1,000	-15 to +60	81	0.07	—	217058CF	34.95	31.45	27.95	25.45	
	217082CF	Mean Well	DKE10B-12	18-36V	+12V@420mA; -12V@420mA	10.0W	1.98x0.99x0.44	12.5	5		60	0.3	0.5	250k	1,000	-15 to +60	80	0.07	—	217082CF	34.95	31.45	27.95	25.45	
	217074CF	Mean Well	DKE10B-15	18-36V	+15V@333mA; -15V@333mA	10.0W	1.98x0.99x0.44	12.5	5	⟷	60	0.3	0.5	250k	1,000	-15 to +60	80	0.07	—	217074CF	34.95	31.45	27.95	25.45	
	217040CF	Mean Well	DKE10C-05	36-72V	+5V@1000mA; -5V@1000mA	10.0W	1.98x0.99x0.44	12.5	5		50	0.3	0.5	250k	1,000	-15 to +60	82	0.07	—	217040CF	34.95	31.45	27.95	25.45	
	217103CF	Mean Well	DKE10C-12	36-72V	+12V@420mA; -12V@420mA	10.0W	1.98x0.99x0.44	12.5	5		60	0.3	0.5	250k	1,000	-15 to +60	83	0.07	—	217103CF	34.95	31.45	27.95	25.45	
	217066CF	Mean Well	DKE10C-15	36-72V	+15V@333mA; -15V@333mA	10.0W	1.98x0.99x0.44	12.5	5		60	0.3	0.5	250k	1,000	-15 to +60	84	0.07	—	217066CF	34.95	31.45	27.95	25.45	

Other Versions Available: Call 800-831-4242

Limited Supply – Special Offers – 90-Day Warranty

	Jameco Number	Manufacturer	Manufacturer Product Number	Input Range	Output Voltage@Current	Output Power	Size Inches (LxWxH)	Power Density (W/in³)	Pins		Ripple & Noise (mV p-p)	Line Reg. (±%)	Load Reg. (±%)	Switching Frequency (Hz)	Isolation Voltage	Temperature ˚C	Efficiency (%)	Weight (lbs.)	Certification	Jameco Number	Price 1	Price 10	Price 25	Price 100	
Encapsulated	205954CF	Power-One	DFC10E48S12	36-72V	+12V@900mA	10.0W	2.0x1.0x0.4	12.5	4	⟷	60	0.2	0.2	220k	700	-40 to +90	83	0.06	—	205954CF	$14.95	$13.49	$12.15	$10.99	Encapsulated

Limited Supply – Special Offers – 90-Day Warranty

Color Code Legend: New Sale Qty Save

New Lower Prices Marked in Red

15 to 25-Watt Isolated DC-to-DC Converters

20-Watt Open Frame

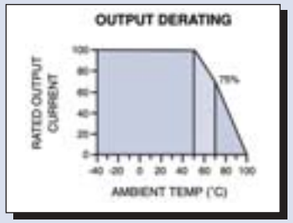
CXA20 Series: Single Output



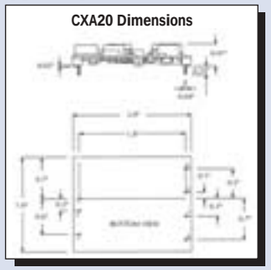
- 1500VDC isolation
- Industry standard footprint
- 100% burn-in test
- Two-year warranty
- Remote ON/OFF
- 4:1 input voltage range
- No minimum load
- Output trim
- Planar magnetics technology
- Protection: over-voltage, over-temperature & short-circuit
- Working temperature: -40˚ to +100˚C (see derating curve)

TOP QUALITY U.S. BRAND

Highlighted below in blue, the CXA20 series is 20-watt, open-frame, isolated, DC-to-DC converters. It features a 4:1 input voltage range of 18 to 75VDC, making it suitable for a wide variety of communications and distributed power applications. With its 2.0" x 1.6" industry-standard footprint, the CXA20 provides an easy upgrade option for those seeking a high-performance, cost-effective DC-to-DC converter.



CXA20 Dimensions



15-Watt Encapsulated

SKE15 & DKE15 Series: Single & Dual Outputs

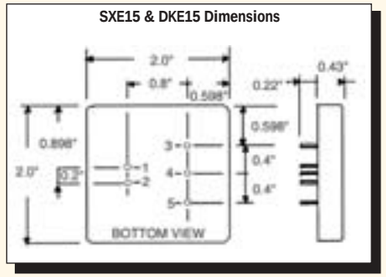


- 1000VDC isolation
- Industry standard package
- Protection: short-circuit & overload
- 100% burn-in test
- One-year warranty
- Shielded metal case
- 2:1 wide input range
- Input filter: Pi-network
- Free-air convection cooling
- Working temperature:
  -15˚ to +60˚C @ full load;
  -25˚ to +71˚C @ 80% load

PERFORMANCE AT VALUE PRICES

Highlighted below in buff color, available in both single and dual outputs, the Mean Well SKE15 & DKE15 series are very popular regulated 15-watt DC-to-DC converters because of their low-cost, reliability, and industry-standard package comprised of a six-sided, shielded metal case. The input-to-output isolation is an impressive 1000VDC, with I/O isolation resistance of 100MΩ. Continuous short-circuit protection and overload protection, both with auto-recovery, are standard features. The input voltage range is a wide 2:1 and electrical noise is minimized with a pi-network input filter.

SXE15 & DKE15 Dimensions



20-Watt Encapsulated

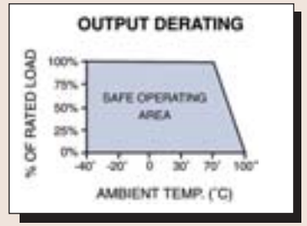
DKB20 & TKB20 Series: Dual & Triple Outputs



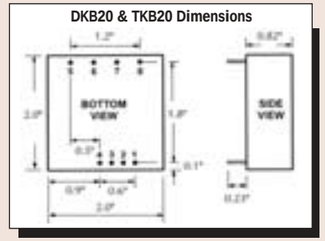
- 1000VDC isolation
- 0.2% regulation
- Protection: short-circuit & overload
- 100% burn-in test
- One-year warranty
- Shielded metal case
- Input filter: Pi network
- Remote ON/OFF
- Output trim
- Free-air convection cooling
- Industry standard package
- Working temperature: -40˚ to +71˚C

Highlighted below in tan, featuring extraordinary line and load regulation of ±0.2%, the Mean Well DKB20 & TKB20 families of regulated DC-to-DC converters are superior for applications where the output voltage must stay within tight limits during extreme operating conditions. The input-to-output isolation is an impressive 1000VDC, with I/O isolation resistance of 1000MΩ. For ease of use, the DKB20 & TKB20 units require no external components and provide both voltage trim and remote ON/OFF capability.

PERFORMANCE AT VALUE PRICES



DKB20 & TKB20 Dimensions



	Jameco Number	Manufacturer	Manufacturer Product Number	Input Range	Output Voltage@Current	Output Power	Size Inches (LxWxH)	Power Density (W/in³)	Pins		Ripple & Noise (mV p-p)	Line Reg. (±%)	Load Reg. (±%)	Switching Frequency (Hz)	Isolation Voltage	Temperature ˚C	Efficiency (%)	Weight (lbs.)	Certification	Jameco Number	Price 1	Price 10	Price 25	Price 100	
Open Frame	219109CF	Artesyn	CXA20-48S3V3	18-75V	+3.3V@6000mA	19.8W	2.0x1.6x0.41	15.5	8		75	0.1	0.2	400k	1,500	-40 to +60	80	0.06	UL/CUL/CSA/VDE/CE	219109CF	$53.95	$48.59	$43.75	$39.35	Open Frame
	219096CF	Artesyn	CXA20-48S05	18-75V	+5V@4000mA	20.0W	2.0x1.6x0.41	15.6	8		75	0.1	0.1	400k	1,500	-40 to +60	83	0.06	UL/CUL/CSA/VDE/CE	219096CF	53.95	48.59	43.75	39.35	
Encapsulated	155715CF	Mean Well	SKE15A-05	9-18V	+5V@3000mA	15.0W	2.0x2.0x0.43	9.4	5		50	0.3	0.5	150k	1,000	-15 to +60	79	0.15	—	155715CF	34.95	31.49	28.15	25.35	Encapsulated
	155707CF	Mean Well	SKE15A-12	9-18V	+12V@1250mA	15.0W	2.0x2.0x0.43	9.4	5	⟷	60	0.3	0.5	150k	1,000	-15 to +60	80	0.15	—	155707CF	34.95	31.19	28.15	25.35	
	155694CF	Mean Well	SKE15A-24	9-18V	+24V@625mA	15.0W	2.0x2.0x0.43	9.4	5		80	0.3	0.5	150k	1,000	-15 to +60	82	0.15	—	155694CF	34.95	31.49	28.15	25.35	
	213276CF	Mean Well	SKE15B-05	18-36V	+5V@3000mA	15.0W	2.0x2.0x0.43	9.4	5		50	0.3	0.5	150k	1,000	-15 to +60	79	0.15	—	213276CF	34.95	31.49	28.15	25.35	
	213284CF	Mean Well	SKE15B-12	18-36V	+12V@1250mA	15.0W	2.0x2.0x0.43	9.4	5		60	0.3	0.5	150k	1,000	-15 to +60	82	0.15	—	213284CF	34.95	31.49	28.15	25.35	
	217138CF	Mean Well	SKE15C-05	36-72V	+5V@3000mA	15.0W	2.0x2.0x0.43	9.4	5		50	0.3	0.5	150k	1,000	-15 to +60	80	0.15	—	217138CF	34.95	31.49	28.15	25.35	
	217120CF	Mean Well	SKE15C-12	36-72V	+12V@1250mA	15.0W	2.0x2.0x0.43	9.4	5		60	0.3	0.5	150k	1,000	-15 to +60	82	0.15	—	217120CF	34.95	31.49	28.15	25.35	
	161710CF	Mean Well	DKE15A-05	9-18V	+5V@1500mA; -5V@1500mA	15.0W	2.0x2.0x0.43	9.4	5		50	0.3	0.5	150k	1,000	-15 to +60	81	0.15	—	161710CF	35.95	32.39	29.15	26.25	
	161728CF	Mean Well	DKE15A-12	9-18V	+12V@625mA; -12V@625mA	15.0W	2.0x2.0x0.43	9.4	5		60	0.3	0.5	150k	1,000	-15 to +60	82	0.15	—	161728CF	35.95	32.39	29.15	26.25	
	213292CF	Mean Well	DKE15A-24	9-18V	+24V@313mA; -24V@313mA	15.0W	2.0x2.0x0.43	9.4	5		80	0.3	0.5	150k	1,000	-15 to +60	82	0.15	—	213292CF	35.95	32.39	29.15	26.25	
	217162CF	Mean Well	DKE15B-15	18-36V	+15V@500mA; -15V@500mA	15.0W	2.0x2.0x0.43	9.4	5	⟷	60	0.3	0.5	150k	1,000	-15 to +60	83	0.15	—	217162CF	35.95	32.39	29.15	26.25	
	217154CF	Mean Well	DKE15C-15	36-72V	+15V@500mA; -15V@500mA	15.0W	2.0x2.0x0.43	9.4	5		60	0.3	0.5	150k	1,000	-15 to +60	82	0.15	—	217154CF	33.95	30.59	26.95	24.59	
	217630CF	Mean Well	DKB20A-05	9-18V	+5V@2000mA; -5V@2000mA	20.0W	1.2x2.0x0.82	6.3	8		100	0.2	0.2	100k	1,000	-40 to +71	80	0.25	—	217630CF	44.95	40.49	36.45	32.79	
	217584CF	Mean Well	DKB20A-12	9-18V	+12V@833mA; -12V@833mA	20.0W	1.2x2.0x0.82	6.3	8		100	0.2	0.2	100k	1,000	-40 to +71	82	0.25	—	217584CF	44.95	40.49	36.45	32.79	
	217621CF	Mean Well	DKB20A-15	9-18V	+15V@667mA; -15V@667mA	20.0W	1.2x2.0x0.82	6.3	8		100	0.2	0.2	100k	1,000	-40 to +71	82	0.25	—	217621CF	44.95	40.49	36.45	32.79	
	217592CF	Mean Well	DKB20B-12	18-36V	+12V@833mA; -12V@833mA	20.0W	1.2x2.0x0.82	6.3	8		100	0.2	0.2	100k	1,000	-40 to +71	85	0.25	—	217592CF	44.95	40.49	36.45	32.79	
	217605CF	Mean Well	DKB20B-15	18-36V	+15V@667mA; -15V@667mA	20.0W	1.2x2.0x0.82	6.3	8		100	0.2	0.2	100k	1,000	-40 to +71	85	0.25	—	217605CF	44.95	40.49	36.45	32.79	
	217576CF	Mean Well	DKB20C-12	36-72V	+12V@833mA; -12V@833mA	20.0W	1.2x2.0x0.82	6.3	8		100	0.2	0.2	100k	1,000	-40 to +71	82	0.25	—	217576CF	44.95	40.49	36.45	32.79	
	217613CF	Mean Well	DKB20C-15	36-72V	+15V@667mA; -15V@667mA	20.0W	1.2x2.0x0.82	6.3	8		100	0.2	0.2	100k	1,000	-40 to +71	82	0.25	—	217613CF	44.95	40.49	36.45	32.79	
	217656CF	Mean Well	TKB20A-B	9-18V	+5V@2500mA; +12V@310mA; -12V@310mA	20.0W	1.2x2.0x0.82	6.3	8	⟷	100	0.2	0.2	100k	1,000	-40 to +71	80	0.25	—	217656CF	44.95	40.49	36.45	32.79	
	217664CF	Mean Well	TKB20B-B	18-36V	+5V@2500mA; +12V@310mA; -12V@310mA	20.0W	1.2x2.0x0.82	6.3	8		100	0.2	0.2	100k	1,000	-40 to +71	82	0.25	—	217664CF	44.95	40.49	36.45	32.79	
	217672CF	Mean Well	TKB20B-C	18-36V	+5V@2500mA; +15V@250mA; -15V@250mA	20.0W	1.2x2.0x0.82	6.3	8		100	0.2	0.2	100k	1,000	-40 to +71	82	0.25	—	217672CF	44.95	40.49	36.45	32.79	
	217648CF	Mean Well	TKB20C-B	36-72V	+5V@2500mA; +12V@310mA; -12V@310mA	20.0W	1.2x2.0x0.82	6.3	8		100	0.2	0.2	100k	1,000	-40 to +71	82	0.25	—	217648CF	44.95	40.49	36.45	32.79	

Other Versions Available: Call 800-831-4242

Limited Supply – Special Offers – 90-Day Warranty

	Jameco Number	Manufacturer	Manufacturer Product Number	Input Range	Output Voltage@Current	Output Power	Size Inches (LxWxH)	Power Density (W/in³)	Pins		Ripple & Noise (mV p-p)	Line Reg. (±%)	Load Reg. (±%)	Switching Frequency (Hz)	Isolation Voltage	Temperature ˚C	Efficiency (%)	Weight (lbs.)	Certification	Jameco Number	Price 1	Price 10	Price 25	Price 100	
Open Frame	109276CF	Astec	AA9090A	0-20V	+5.1V@3750mA; +12.6V@100mA; -26V@40mA	21.0W	3.6x1.6x0.8	4.6	27	⟷	50/100/200	2.0	5.0	40k	—	0 to +50	70	—	—	109276CF	$6.95	$5.95	$4.75	$3.55	Open Frame

Limited Supply – Special Offers – 90-Day Warranty

25-Watt Enclosed

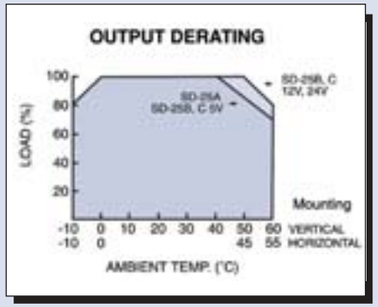
SD25 Series: Single Output

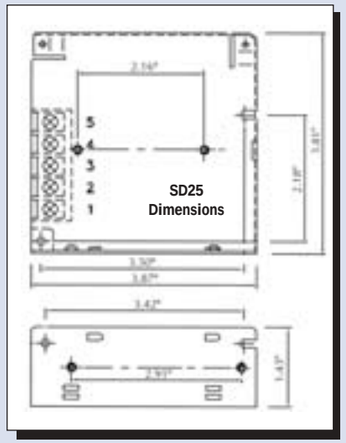


- 1000VDC isolation
- Input filter: Pi-network
- Protection: short-circuit, overload and over-voltage
- Free-air convection cooling
- 2:1 wide input range
- Industry standard package
- Shielded metal case
- 105˚C output capacitor
- 100% burn-in test
- One-year warranty
- Very high MTBF
- Working temperature: -10˚ to +60˚C (see derating curve)
- Mounting hardware use P/Ns 222121CF, 222164CF, 222156CF & 222172CF see www.Jameco.com for specifications

PERFORMANCE AT VALUE PRICES

Highlighted below in blue and well known for its reliability and low cost, the Mean Well SD-25 family of enclosed DC-to-DC converters offers wide 2:1 input voltage ranges. The physical ruggedness is complemented by the many electrical protections; short-circuit, overload with auto-recovery, and over-voltage to 165% of rated output. The input-to-output isolation is 500VDC and the isolation resistance is 100MΩ at 500VDC. The highly-efficient, low-temperature design provides full power from 0˚C to 40˚C, with derating to –10˚C and +60˚C (see derating curve). The line and load regulation are both ±0.5% maximum. The Mean Well SD-25 series complies with EMC standards EN55022 class B and EN61000-4-2/3/4/6/8.





30-Watt Encapsulated

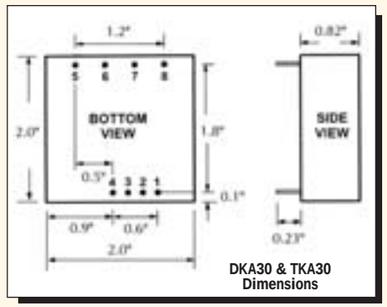
DKA30 & TKA30 Series: Dual & Triple Output



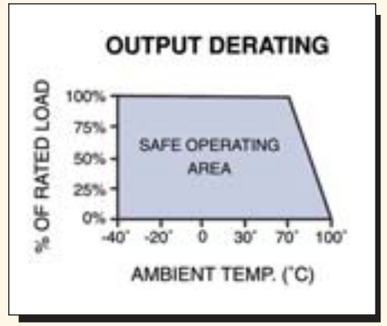
- ±0.2% regulation
- 1000VDC isolation
- Input filter: Pi-network
- Protection: short-circuit & overload
- Free-air convection cooling
- 2:1 wide input range
- Industry standard package
- Shielded metal case
- Remote ON/OFF
- 100% burn-in test
- One-year warranty
- Very high MTBF
- Output trim
- Working temperature: -40˚ to +71˚C

PERFORMANCE AT VALUE PRICES

Detailed below in buff color, the Mean Well DKA30 & TKA30 families of regulated 30-watt DC-to-DC converters include popular dual and triple-output configurations packaged in six-sided, shielded metal cases. Line and load regulation are both an outstanding ±0.2%. Load regulation applies for a load change of 10% to full load for both dual and triple-outputs. The industry-standard package supports full power with free-air convection over the ambient temperature range of –40˚C to 71˚C. Performance features include a wide input voltage range of 2:1 and the use of a pi-network input filter for low noise operation. The input-to-output isolation is an impressive 1000VDC, with I/O isolation resistance of 1000MΩ. Short-circuit and over-voltage protection is included. For ease of use, the DKA30 & TKA30 units require no external components and provide both voltage trim and remote ON/OFF capability.

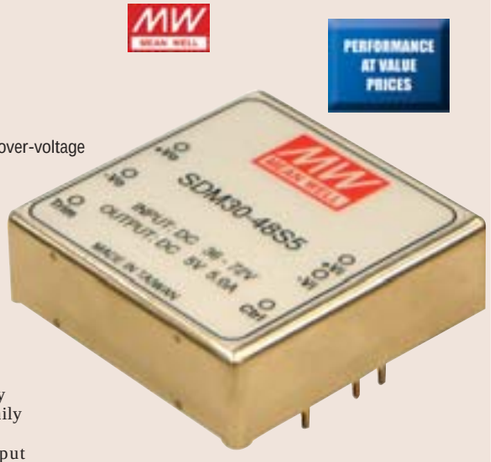


DKA30 & TKA30 Dimensions



30-Watt Regulated Encapsulated

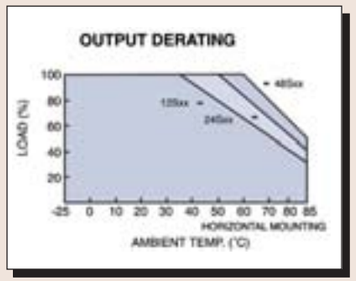
SDM30 Series: Single Output

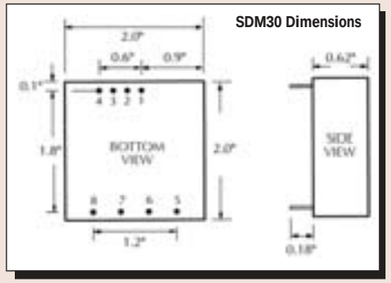


PERFORMANCE AT VALUE PRICES

- 1000VDC isolation
- Input filter: Pi-network
- Protection: short-circuit, overload & over-voltage
- Free-air convection cooling
- Industry standard package
- 2:1 wide input range
- Shielded metal case
- Remote ON/OFF
- 100% burn-in test
- One-year warranty
- Very high MTBF
- Output trim
- Working temperature: -25˚ to +85˚C

Shown below in tan, with efficiency as high as 85%, this impressive family of 30-watt encapsulated DC-to-DC converters provides full power output with free-air convection cooling. The compact size of 2.0"x2.0"x0.63" and the 6-sided shielded metal case lend to its easy adaptability to numerous types of applications. Input voltage ranges are a full 2:1. The line and load regulation are both a solid ±1%. Protection includes short-circuit, overload to 105% with auto-recovery, and over-voltage to 150% of rated output. The isolation voltage is 1000VDC and the resistance is 100MΩ at 500VDC. The SDM30 series features ±10% trimming output and remote ON/OFF control. They completely comply with EN55022 class B, FCC part 15J and EN60950 safety and EMI requirements.





	Jameco Number	Manufacturer	Manufacturer Product Number	Input Range	Output Voltage@Current	Power	Size Inches (LxWxH)	Power Density (W/in³)	Pins		Ripple & Noise (mV p-p)	Line Reg. (±%)	Load Reg. (±%)	Switching Frequency (Hz)	Isolation Voltage	Temperature ˚C	Efficiency (%)	Weight (lbs.)	Jameco Number	Price 1	Price 10	Price 25	Price 100	
Enclosed	175661CF	Mean Well	SD-25A-5	9-18V	+5V@5000mA	25.0W	see diagram	1.2	5		100	0.5	0.5	—	500	-10 to +60	71	0.80	175661CF	$40.95	$30.99	$28.99	$24.99	Enclosed
	175804CF	Mean Well	SD-25A-12	9-18V	+12V@2100mA	25.2W	see diagram	1.2	5		120	0.3	0.3	—	500	-10 to +60	72	0.80	175804CF	40.95	30.99	28.99	24.99	
	175812CF	Mean Well	SD-25A-24	9-18V	+24V@1100mA	26.4W	see diagram	1.2	5		150	0.2	0.2	—	500	-10 to +60	75	0.80	175812CF	40.95	30.99	28.99	24.99	
	212556CF	Mean Well	SD-25B-5	19-36V	+5V@5000mA	25.0W	see diagram	1.2	5	⟷	100	0.5	0.5	—	500	-10 to +60	72	0.80	212556CF	40.95	30.99	28.99	24.99	
	216629CF	Mean Well	SD-25C-5	36-72V	+5V@5000mA	25.0W	see diagram	1.2	5		100	0.5	0.5	—	500	-10 to +60	74	0.80	216629CF	40.95	30.99	28.99	24.99	
Encapsulated	217701CF	Mean Well	DKA30A-12	9-18V	+12V@1250mA; -12V@1250mA	30.0W	2.0x2.0x0.82	9.4	8		100	0.2	0.2	100k	1,000	-40 to +71	80	0.25	217701CF	64.95	58.45	52.59	47.35	Encapsulated
	218544CF	Mean Well	DKA30B-12	18-36V	+12V@1250mA; -12V@1250mA	30.0W	2.0x2.0x0.82	9.4	8		100	0.2	0.2	100k	1,000	-40 to +71	85	0.25	218544CF	64.95	58.45	52.59	47.35	
	217699CF	Mean Well	DKA30C-12	36-72V	+12V@1250mA; -12V@1250mA	30.0W	2.0x2.0x0.82	9.4	8		100	0.2	0.2	100k	1,000	-40 to +71	82	0.25	217699CF	64.95	58.45	52.59	47.35	
	217736CF	Mean Well	TKA30A-B	9-18V	+5V@3500mA; +12V@310mA; -12V@310mA	25.0W	2.0x2.0x0.82	7.8	8		100	0.2	0.2	100k	1,000	-40 to +71	80	0.25	217736CF	69.65	62.65	56.39	50.75	
	217728CF	Mean Well	TKA30B-C	18-36V	+5V@3500mA; +15V@250mA; -15V@250mA	25.0W	2.0x2.0x0.82	7.8	8		100	0.2	0.2	100k	1,000	-40 to +71	82	0.25	217728CF	69.65	62.65	56.39	50.75	
	217681CF	Mean Well	TKA30C-B	36-72V	+5V@3500mA; +12V@310mA; -12V@310mA	25.0W	2.0x2.0x0.82	7.8	8	⟷	100	0.2	0.2	100k	1,000	-40 to +71	82	0.25	217681CF	69.65	62.65	56.39	50.75	
	217200CF	Mean Well	SDM30-12S05	9-18V	+5V@5000mA	25.0W	2.0x1.8x0.62	10.4	8		75	1.0	1.0	—	1,000	-25 to +85	77	0.22	217200CF	45.95	41.35	37.25	33.55	
	217234CF	Mean Well	SDM30-12S12	9-18V	+12V@2100mA	25.2W	2.0x1.8x0.62	10.5	8		100	1.0	1.0	—	1,000	-25 to +85	80	0.22	217234CF	45.95	41.35	37.25	33.55	
	217189CF	Mean Well	SDM30-12S15	9-18V	+15V@1700mA	25.5W	2.0x1.8x0.62	10.5	8		100	1.0	1.0	—	1,000	-25 to +85	80	0.22	217189CF	45.95	41.35	37.25	33.55	
	217218CF	Mean Well	SDM30-24S05	18-36V	+5V@5000mA	25.0W	2.0x1.8x0.62	10.4	8		75	1.0	1.0	—	1,000	-25 to +85	79	0.22	217218CF	45.95	41.35	37.25	33.55	
	217242CF	Mean Well	SDM30-24S12	18-36V	+12V@2500mA	30.0W	2.0x1.8x0.62	12.5	8		100	1.0	1.0	—	1,000	-25 to +85	82	0.22	217242CF	45.95	41.35	37.25	33.55	
	217171CF	Mean Well	SDM30-24S15	18-36V	+15V@2000mA	30.0W	2.0x1.8x0.62	12.5	8	⟷	100	1.0	1.0	—	1,000	-25 to +85	83	0.22	217171CF	45.95	41.35	37.25	33.55	
	217226CF	Mean Well	SDM30-48S05	36-72V	+5V@5000mA	25.0W	2.0x1.8x0.62	10.4	8		75	1.0	1.0	—	1,000	-25 to +85	80	0.22	217226CF	45.95	41.35	37.25	33.55	
	217251CF	Mean Well	SDM30-48S12	36-72V	+12V@2500mA	30.0W	2.0x1.8x0.62	12.5	8		100	1.0	1.0	—	1,000	-25 to +85	84	0.22	217251CF	45.95	41.35	37.25	33.55	
	217197CF	Mean Well	SDM30-48S15	36-72V	+15V@2000mA	30.0W	2.0x1.8x0.62	12.5	8		100	1.0	1.0	—	1,000	-25 to +85	85	0.22	217197CF	45.95	41.35	37.25	33.55	

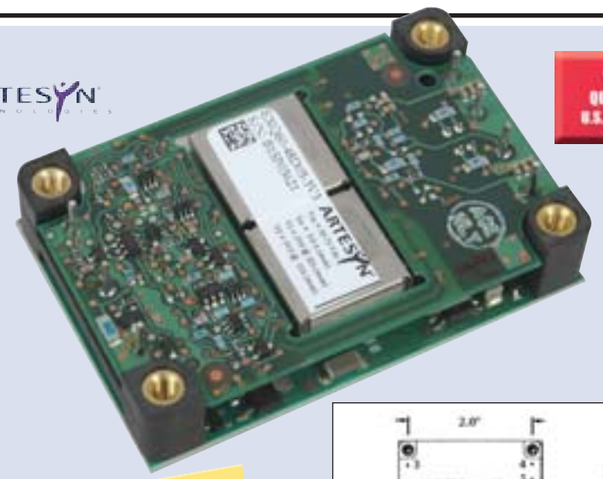
Other Versions Available: Call 800-831-4242

60-Watt Open Frame

EXQ60 Series Dual Outputs

- 1500VDC isolation
- Industry standard footprint
- Protection: short-circuit, over-current & over-voltage
- 100% burn-in test
- Two-year warranty
- Very high MTBF
- Remote ON/OFF
- No minimum load
- 91% efficiency at 5V & 3.3V
- Output trim
- Planar magnetics technology
- Working temperature: -40 to +100˚C

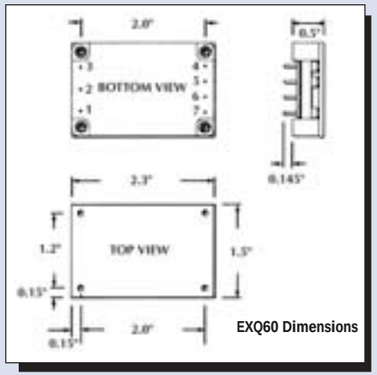
Detailed below in blue, the EXQ60 is a new dual-output, high-efficiency, open-frame, isolated 60-watt DC-to-DC converter series in an industry-standard quarter-brick footprint. The EXQ60 delivers very high output current at low voltages, and excellent useable power density for today's high-end applications. The models offered feature an input voltage range of 33 to 75VDC and are available in output voltages of 2.5V/3.3V and 3.3V/5V. The output voltage on each model is adjustable from 90% to 110% of the nominal value. Typical efficiencies for the models are 90% for the 2.5V/3.3V and 91% for the 3.3V/5V versions. The EXQ60 Series also has a remote ON/OFF capability. Over-current and over-voltage protection features are included as standard. With full international safety approval including EN60950 and UL1950, the EXQ60 reduces compliance cost and time to market.



TOP QUALITY U.S. BRAND

UNDERSTANDING CONVERTERS #4

PLANAR MAGNETICS: Planar magnetics use high volume manufacturing processes and technologies to replace conventional wire windings in magnetic components with patterned conductors formed on single or multilayer substrates. Planar magnetics offer tremendous advantages in terms of cost, reliability, manufacturability and predictable electrical parameters.



EXQ60 Dimensions

50, 100 & 150-Watt Enclosed

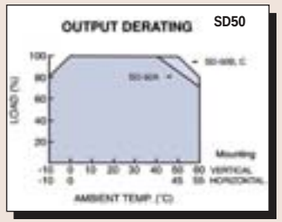
SD50, SD100 & SD150 Series: Single Output

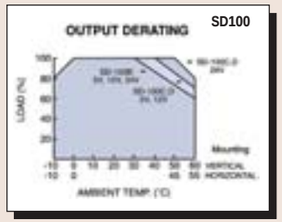
- 1000VDC isolation
- Protection: short-circuit, overload & over-voltage
- 100% burn-in test
- Very high MTBF
- Free-air convection cooling
- 2:1 wide input range
- Working temperature: -10˚ to +60˚C (see derating curve)
- Mounting hardware: use P/Ns 222156CF & 222172CF; see www.Jameco.com for specifications
- Input filter: Pi-network
- One-year warranty
- Shielded metal case
- Industry standard package
- 105˚C output capacitor

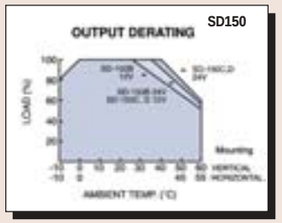


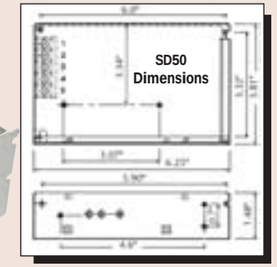
PERFORMANCE AT VALUE PRICES

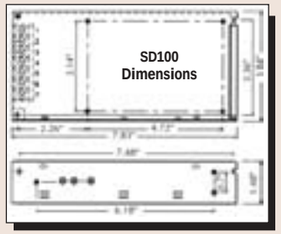
Highlighted below in tan, the Mean Well SD families of enclosed DC-to-DC converters are known for their reliability and low cost. The physical ruggedness is complemented by the many electrical protections; short-circuit, overload with auto-recovery, and over-voltage to 165% of rated output. These converters offer wide 2:1 input voltage ranges of 9-18VDC and 36-72VDC. The input-to-output isolation is 500VDC and the isolation resistance is 100MΩ at 500VDC. The highly-efficient, low-temperature design provides full power from 0˚C to 40˚C, with derating to –10˚C and +60˚C (see derating curve). The line and load regulation are both ±0.5% maximum. The Mean Well SD series complies with EMC standards EN55022 class B and EN61000-4-2/3/4/6/8.

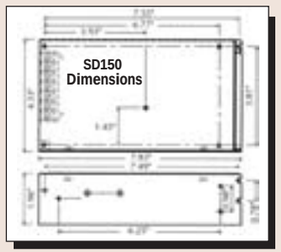












	Jameco Number	Manufacturer	Manufacturer Product Number	Input Range	Output Voltage@Current	Output Power	Size Inches (LxWxH)	Power Density (W/in³)	Pins		Ripple & Noise (mV p-p)	Line Reg. (±%)	Load Reg. (±%)	Switching Frequency (Hz)	Isolation Voltage	Temperature ˚C	Efficiency (%)	Weight (lbs.)	Certification	Jameco Number	Price 1	Price 10	Price 25	Price 100	
Open Frame	218894CF	Artesyn	EXQ60-48D3V3-2V5-R	33-75V	+2.5V@16A; +3.3V@12A	40.0W	2.3x1.5x0.5	46.4	7		60	—	—	325k	1,500	-40 to +100	90.5	0.10	UL/CUL/TUV	218894CF	$134.95	$115.35	$108.59	$103.59	Open Frame
	218907CF	Artesyn	EXQ60-48D05-3V3-R	33-75V	+3.3V@15A; +5V@12A	60.0W	2.3x1.5x0.5	63.8	7		60	—	—	400k	1,500	-40 to +100	91.5	0.10	UL/CUL/TUV	218907CF	134.95	115.35	108.59	103.59	
Enclosed	212548CF	Mean Well	SD-50A-5	9-18V	+5V@10A	50.0W	see diagram	1.4	5		100	0.5	0.5	—	1,500	-10 to +60	70	1.10	—	212548CF	~~$92.95~~ 51.95	39.99	36.99	32.99	Enclosed
	212521CF	Mean Well	SD-50B-5	19-36V	+5V@10A	50.0W	see diagram	1.4	5	⟷	100	0.5	0.5	—	1,500	-10 to +60	73	1.10	—	212521CF	~~$92.95~~ 51.95	39.99	36.99	32.99	
	212530CF	Mean Well	SD-50B-12	19-36V	+12V@4.2A	50.4W	see diagram	1.4	5		120	0.3	0.3	—	1,500	-10 to +60	75	1.10	—	212530CF	~~$92.95~~ 51.95	39.99	36.99	32.99	
	212513CF	Mean Well	SD-50B-24	19-36V	+24V@2.1A	50.4W	see diagram	1.4	5		150	0.2	0.2	—	1,500	-10 to +60	80	1.10	—	212513CF	~~$92.95~~ 51.95	39.99	36.99	32.99	
	216602CF	Mean Well	SD-50C-5	36-72V	+5V@10A	50.0W	see diagram	1.4	5		100	0.5	0.5	—	1,500	-10 to +60	76	1.10	—	216602CF	~~$92.95~~ 51.95	39.99	36.99	32.99	
	212505CF	Mean Well	SD-50C-12	36-72V	+12V@4.2A	50.4W	see diagram	1.4	5		120	0.3	0.3	—	1,500	-10 to +60	78	1.10	—	212505CF	~~$92.95~~ 51.95	39.99	36.99	32.99	
	212492CF	Mean Well	SD-50C-24	36-72V	+24V@2.1A	50.4W	see diagram	1.4	5		150	0.2	0.2	—	1,500	-10 to +60	83	1.10	—	212492CF	~~$92.95~~ 47.95	43.19	38.85	34.99	
	212476CF	Mean Well	SD-100B-5	19-36V	+5V@20A	100.0W	see diagram	2.3	7		100	0.5	0.5	—	1,500	-10 to +60	74	1.30	—	212476CF	64.95	58.49	52.65	47.35	
	216565CF	Mean Well	SD-100B-12	19-36V	+12V@8.5A	102.0W	see diagram	2.3	7	⟷	120	0.3	0.3	—	1,500	-10 to +60	75	1.30	—	216565CF	72.95	53.99	50.99	44.99	
	212484CF	Mean Well	SD-100C-5	36-72V	+5V@20A	100.0W	see diagram	2.3	7		100	0.5	0.5	—	1,500	-10 to +60	75	1.30	—	212484CF	64.95	58.49	52.65	47.35	
	212468CF	Mean Well	SD-100C-12	36-72V	+12V@8.5A	102.0W	see diagram	2.3	7		120	0.3	0.3	—	1,500	-10 to +60	77	1.30	—	212468CF	72.95	53.99	50.99	44.99	
	217269CF	Mean Well	SD-150B-12	19-36V	+12V@12.5A	150.0W	see diagram	2.5	7		120	0.5	0.5	—	1,500	-10 to +60	75	1.90	—	217269CF	82.95	70.99	65.99	57.99	

Other Versions Available: Call 800-831-4242

Limited Supply – Special Offers – 90-Day Warranty

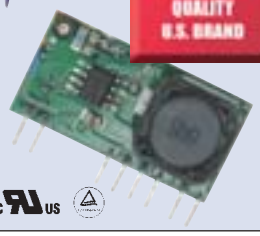
	Jameco Number	Manufacturer	Manufacturer Product Number	Input Range	Output Voltage@Current	Output Power	Size Inches (LxWxH)	Power Density (W/in³)	Pins		Ripple & Noise (mV p-p)	Line Reg. (±%)	Load Reg. (±%)	Switching Frequency (Hz)	Isolation Voltage	Temperature ˚C	Efficiency (%)	Weight (lbs.)	Certification	Jameco Number	Price 1	Price 10	Price 25	Price 100	
Encapsulated	206105CF	Shindingen	HGE05024	20-32V	+5V@24A	120.0W	4.5x2.3x0.5	23.2	13		400	0.01	0.05	—	—	-10 to +80	80	—	—	206105CF	~~$49.95~~ $24.95	$22.49	$20.25	$18.19	Encapsulated
	203561CF	Power One	HBD0602GE-A1V1	34-75V	+3.3V@15A; +5V@12A	60.0W	2.3x2.4x0.5	21.7	10		75/100	0.2	0.5	500k	1,500	-40 to +100	79	0.15	UL/CUL/VDE	203561CF	14.95	13.49	12.15	10.95	
	206113CF	Datel	BCP-5/15-3.3/15-D48	36-75V	+3.3V@15A; +5V@15A	75.0W	2.3x2.4x0.5	27.2	10	⟷	50	0.2	0.5	350k	1,500	-40 to +45	88	0.26	UL/VDE	206113CF	~~$39.95~~ 19.95	17.99	16.19	14.55	
	206041CF	Power Cube	PD150-048-05-PC	36-76V	+5V@30A	150.0W	2.3x2.4x0.5	54.3	9		50	0.05	0.05	375k	3,000	—	80	0.16	UL/CUL/VDE	206041CF	~~$49.95~~ 24.95	22.49	20.25	18.19	
	206033CF	Power Cube	PD300-300-15-PC	200-300V	+15V@20A	300.0W	4.6x2.4x0.5	54.3	11		150	0.05	0.05	375k	3,000	—	80	0.37	UL/CUL/VDE	206033CF	~~$69.95~~ 39.95	35.99	32.39	29.15	
	206121CF	Lambda	PH300F-280-3	200-400V	+3V@60A	180.0W	5.8x3.4x0.5	18.3	12		100	0.4	0.8	3k	3,000	-20 to +85	73	0.56	UL/CSA/CE	206121CF	~~$40.95~~ 27.95	25.19	22.65	20.39	

6-Amp SIL06C Series

ARTESYN TECHNOLOGIES

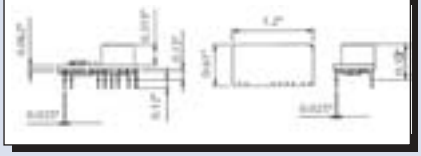
TOP QUALITY U.S. BRAND

- Ultra-wide trim range
- Horizontal and vertical models
- "Power good" signal
- Protection: over-current & short-circuit
- Working temperature: 0˚ to +80˚C (derated above 50˚C)

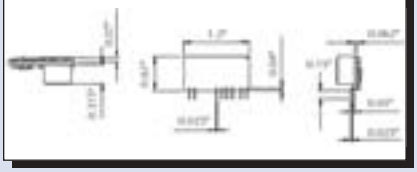


Highlighted below in blue, the SIL06C series are new high-density, open-frame, non-isolated DC-to-DC converters for space-sensitive applications. An external resistor adjusts the output voltage from its pre-set value of 0.9V to any value up to the 3.3V maximum. The SIL06C series offers remote ON/OFF and over-current protection as standard. With full international safety approval including EN60950 and UL60950, the SIL06C reduces compliance costs and time to market.

Horizontal Mount Dimensions



Vertical Mount Dimensions

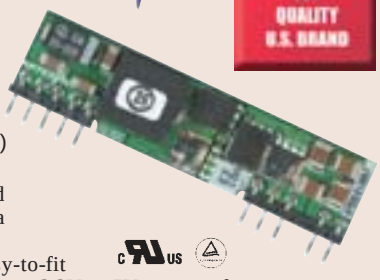


10-Amp SIL10E Series

ARTESYN TECHNOLOGIES

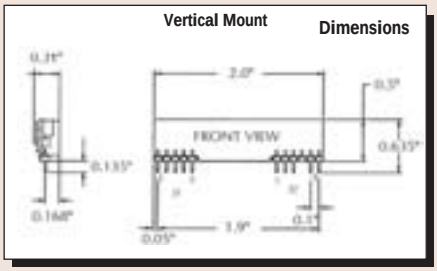
TOP QUALITY U.S. BRAND

- Highest power density: 107W/in³
- Remote sense
- 96% efficiency at 3.3V
- Protection: thermal & short-circuit
- Working temperature: -40˚ to +100˚C (derated above 70˚C)



Detailed below in tan, the SIL10E series are non-isolated DC/DC converters packaged in a single-in-line footprint giving designers a cost-effective and easy-to-fit solution for conversion from either a 3.3V or 5V input voltage to an output voltage in the range of 0.8V-3.6V. The SIL10E offers both fixed outputs and wide output trim range, which allows maximum design flexibility and a pathway for future upgrades. The SIL10E is designed for applications that include distributed power, workstations, optical network and wireless applications.

Vertical Mount Dimensions



15-Amp SIL15C Series

ARTESYN TECHNOLOGIES

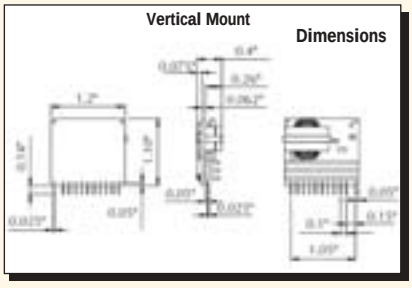
TOP QUALITY U.S. BRAND

- 91% efficiency
- Ultra-wide trim range
- "Power good" signal
- Protection: over-current & short-circuit
- Working temperature: 0˚ to +80˚C (derated above 50˚C)



Highlighted below in buff color, the SIL15C series are new high-density, open frame, non-isolated DC/DC converters for space-sensitive applications. Each model has a wide input range (4.5-5.5V or 10.2-13.8V) and offers a wide output voltage range of either 0.9-3.3V or 0.9-5V with a 15A load. An external resistor adjusts the output voltage from its pre-set value of 0.9V to any value up to the maximum allowed value for the model. With full international safety approval including EN60950 and UL/CUL60950, the SIL15C Series reduces compliance costs and time to market.

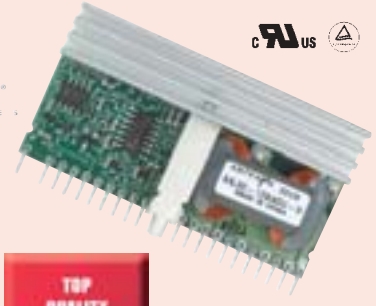
Vertical Mount Dimensions



30-Amp SIL30C Series

ARTESYN TECHNOLOGIES

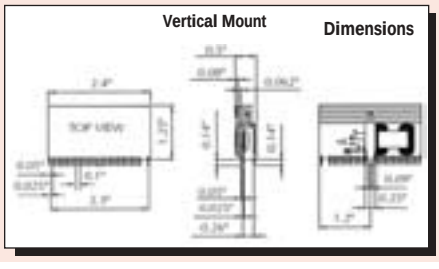
- 91% efficiency
- Ultra-wide trim range
- Horizontal & vertical models
- "Power good" signal
- Protection: over-current, over-temperature & short-circuit
- Working temperature: 0˚ to +80˚C (derated above 50˚C)



TOP QUALITY U.S. BRAND

Highlighted below in rose color, the SIL30C series are new high-density, open-frame, non-isolated DC/DC converters for space sensitive applications. The converters have a wide input range (10.2-13.8VDC) and offer a wide 0.9-5V output voltage range with a 30A load.

Vertical Mount Dimensions



The SIL Series Converters above also have the following features:

• di/dt: 10A/µs • 100% burn-in test • No minimum load • Planar magnetics technology • Very high MTBF • Remote ON/OFF • Two-year warranty

Mfr.	Manufacturer Product Number*	Input Range	Output Voltage@Current	Output Power	Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. (±%)	Temp. ˚C	Efficiency (%)	MTBF (hours)	Jameco Part No.	Price 1	Price 10	Price 25	Price 100
Artesyn	SIL06C-05SADJ-V	4.5V-5.5V	0.9-3.3V@6A	20W	1.20x0.61x0.07	8	0.2	0.5	0 to +80	89	1,300,000	**219150CF**	$10.25	$9.75	$9.25	$10.59
Artesyn	SIL06C-05SADJ-H	4.5V-5.5V	0.9-3.3V@6A	20W	1.20x0.61x0.53	8	0.2	0.5	0 to +80	89	1,300,000	**219168CF**	10.25	9.75	9.25	10.59
Artesyn	SIL10E-05S1V8-V	3.0V-5.5V	1.8V@10A	18W	2.00x0.50x0.31	11	1.0	1.0	-40 to +100	92	7,042,000	**219141CF**	21.95	20.95	19.95	18.95
Artesyn	SIL10E-05S2V5-V	3.0V-5.5V	2.5V@10A	25W	2.00x0.50x0.31	11	1.0	1.0	-40 to +100	94	7,042,000	**219133CF**	21.95	20.95	19.95	18.95
Artesyn	SIL10E-05W3V3-V	4.5V-5.5V	0.8-3.6V@10A	33W	2.00x0.50x0.31	11	1.0	1.0	-40 to +100	95	7,042,000	**219117CF**	21.95	20.95	19.95	18.95
Artesyn	SIL10E-05S3V3-V	4.5V-5.5V	3.3V@10A	33W	2.00x0.50x0.31	11	1.0	1.0	-40 to +100	95	7,042,000	**219125CF**	21.95	20.95	19.95	18.95
Artesyn	SIL15C-05SADJ-V	4.5V-5.5V	0.9V-3.3V@15A	50W	1.20x1.10x0.40	13	0.2	0.5	0 to +80	89	7,817,000	**218886CF**	13.95	13.25	12.75	12.25
Artesyn	SIL15C-12SADJ-V	10.2V-13.8V	0.9V-5V@15A	75W	1.20x1.10x0.40	13	0.2	0.5	0 to +80	91	7,817,000	**218878CF**	15.95	15.20	14.69	14.19
Artesyn	SIL30C-12SADJ-V	10.2V-13.8V	0.9V-5V@30A	150W	2.40x1.25x0.47	24	0.2	1.0	0 to +80	91	129,000	**218860CF**	21.95	20.95	20.15	19.39

* Suffix: V=Vertical; H=Horizontal

DIN-Rail Switching Power Supplies

- Low cost, high reliability
- International AC input range
- Soft-start circuit, limiting AC surge current
- Short-circuit, overload, over-voltage protected
- Built in EMI filter, low ripple noise
- 100% full-load burn-in test
- For DIN-Rail terminal blocks see page 137

UL-508


192698CF


212273CF


212290CF


221891CF

Part No.	Product No.	Power (W)	Output Volts@Current	Input Voltage (VAC @ Hz/VDC)	Input Current @ Maximum Load	Size (L" x W" x H")	Wt. (lbs.)	1	10	50
212302CF	DR4505	25	5VDC @ 5A	85-264 @ 47-63/120-370	1.5A(115V)/750mA(230V)	3.0 x 2.6 x 3.6	0.9	$45.95	$31.99	$29.99
192698CF	DR4512	42	12VDC @ 3.5A	85-264 @ 47-63/120-370	1.5A(115V)/750mA(230V)	3.0 x 2.6 x 3.6	0.7 ~~$69.95~~	45.95	31.99	29.99
221874CF	DR4515	42	15VDC @ 2.8A	85-264 @ 47-63/120-370	1.5A(115V)750mA(230V)	3.0 x 2.6 x 3.6	0.9	45.95	31.99	29.99
192680CF	DR4524	48	24VDC @ 2A	85-264 @ 47-63/120-370	1.5A(115V)/750mA(230V)	3.0 x 2.6 x 3.6	0.7 ~~$69.95~~	45.95	31.99	29.99
212290CF	DR7512	75	12VDC @ 6.3A	85-264 @ 47-63/120-370	2.0A(115V)/1.2A(230V)	3.9 x 2.1 x 4.9	1.2	73.95	50.99	46.99
212281CF	DR7524	75	24VDC @ 3.2A	85-264 @ 47-63/120-370	2.0A(115V)/1.2A(230V)	3.9 x 2.1 x 4.9	1.2	73.95	50.99	46.99
221866CF	DR7548	76.8	48VDC @ 1.6A	85-264 @ 47-63/120-370	2.0A(115V)/1.2A(230V)	3.9 x 2.1 x 4.9	1.2	73.95	50.99	46.99
212273CF	DR12012	120	12VDC @ 10A	88-132/176-264* @ 47-63	2.8A(115V)/1.7A(230V)	2.6 x 3.9 x 4.9	1.4	85.95	58.99	54.99
212265CF	DR12024	120	24VDC @ 5A	88-132/176-264* @ 47-63	2.8A(115)/1.7A(230V)	2.6 x 3.9 x 4.9	1.4	85.95	58.99	54.99
221903CF	DR12048	120	48VDC @ 2.5A	88-132/176-264* @ 47-63	2.8A(115V)/1.7A (230V)	2.6 x 3.9 x 4.9	1.4	85.95	58.99	54.99
221891CF	DRP24024	240	24VDC @ 10A	85-264 @ 47-63/120-370	3.5A (115V)/1.8A(230V)	3.9 x 4.9 x 4.9	2.4	156.95	101.99	94.99
221882CF	DRP24048	240	48VDC @ 5.0A	85-264 @47-63/120-370	3.5A(115V)/1.8A(230V)	3.9 x 4.9 x 4.9	2.4	156.95	101.99	94.99

*switch selectable

Din Mounting Rail

DIN rail enables easy installation of components such as fuseable terminal blocks & power supplies configured for DIN mounting.

- Sold in 1 meter (39") length

Additional Mounting Rails see www.Jameco.com


185965CF

Part No.	Product No.	Description	Material	Type	Length	1	10	100
185965CF	017322005	Prepunched	Zinc bichromate plate steel	PR30	1 meter (39")	$5.95	$5.35	$4.79

13.8VDC Precision Regulated Linear Power Supplies

- Output voltage: 13.8VDC
- Input voltage: 115VAC @ 60Hz
- Illuminated rocker switch
- Heavy duty 5'8" 3-prong power cord
- Short-circuit protection • Fuse protected
- Output terminals: see page 59 for mating cigarette plugs and page 159 for mating banana terminal plugs

135845CF
Banana & Cigarette



136581CF
Banana terminal



138667CF
Banana terminal (rear)



Part No.	Model No.	Power (W)	Output Current (A)	Output Terminals	Size (L" x W" x H")	Wt. (lbs.)	1	10	25
135845CF	RPS1204	55.2	4	Banana terminals / cigarette plug	6.7 x 5.2 x 3.2	5.5	$29.95	$26.95	$23.95
136581CF	RPS1207†	96.6	7	Banana terminals	8.7 x 5.7 x 3.6	8.5	59.95	53.95	48.95
138667CF	38-381	138.0	10	Banana terminals (rear)	7.0 x 6.6 x 4.3	10.0	69.95	62.95	56.95
138675CF	52-192012	276.0	20	Banana terminals	10.0 x 7.8 x 4.4	15.9	109.95	99.95	89.95

† P/N 136581CF includes overheating protection

Linear Power Supplies

- Input voltage: 100/120/220/240VAC @ 47-63Hz
- Input connector: 0.119" solder terminals
- Output connector: solder post
- MTBF rating: greater than 300,000 hours
- Ripple and noise: 5.0mVp-p • Efficiency: 45%
- Over-voltage, over-current, short-circuit protection, remote sensing and 100% burn-in

202884CF: Output voltage: +5VDC @ 1.5A; -5VDC @ 1.5A
202892CF: Output voltage: +5VDC @ 3.0A; -5VDC @ 3.0A

SALE



Part No.	Product No.	Power	Size (L x W x H)	Weight (lbs.)	1	10	50
202884CF	HAA5-1.5/0VP-A	15W	6.5" x 4.0" x 1.6"	2.6	$9.19	$8.39	$7.65
202892CF	HBB5-3/0VP-A	30W	7.0" x 4.9" x 2.5"	4.7	17.95	15.29	11.45

ACDC Electronics 45-Watt Linear Power Supply

- Output voltage: 15V @ 3A
- Input voltage: 115VAC @ 50-60Hz
- Input connector: 0.173" solder terminals
- Output connector: solder studs
- Size: 5.6"L x 5.0"W x 3.0"H • Weight: 4.0 lbs.



Part No.	Product No.	1	10	25
214615CF	ECV15N3	$34.95	$31.49	$28.35

Current Sensing Transformers

Class 1 Current Transformer

This series can be applied to test, control, display, and record the running of electrical equipment, and to protect the equipment against damage in the AC circuit.

- Maximum voltage: 660VAC • Frequency: 50-60Hz
- Size: 3.0"L x 3.2"W x 1.6" thick • Weight: 1.1 lbs.

Includes: Mounting bracket and hardware



Part No.	Mfr. Cross Ref. No.	Power	Ratio	1	10	100
174887CF	MSQ30	5VA	200A/5A; 5VA	$4.25	$3.82	$3.44

Current Sensing Transformer

- Inductance: 5mH • Turns: 60
- Sensitivity current (I_{in}): 1A
- Max. current: 300mA
- Freq. range: 10-50 kHz
- Sensitivity voltage (V_{out}): 1V
- Terminating resistor: 50Ω
- Size: 0.8"H x 0.7"W x 0.4"T



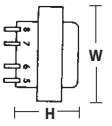
Part No.	Mfr. Cross Ref. No.	1	10	100
164718CF	MTC30101	$2.15	$1.95	$1.75

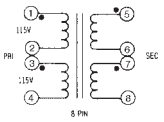
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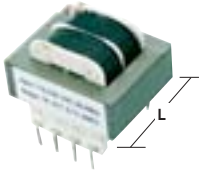
Split-Bobbin Power Transformers

Non-concentrically wound with primaries and secondaries side-by-side providing low capacitive coupling.

- Primary: 115/230VAC, 50-60Hz
- PC terminal pin spacing for accurate placement







102517CF



203318CF

Part Number	Mfr. Cross Ref. No.	Triad Cross	Input Voltage	VA Cap	Individual Output	Parallel Output	Series Output	Dimensions L"	W"	H"	Wt. (lbs.)	Pricing 1	10	100
221292CF	DSW-312	FS12200	115/230	2.5	6.3V @ .20A	6.3V @ .40A	12.6VCT @ .20A	1.38	1.13	1.19	0.3	**$5.95**	**$4.95**	**$4.25**
102533CF	XFR1205SB	FS12500	115/230	6.3	6.3V @ .50A	6.3V @ 1.0A	12.6VCT @ .50A	1.31	1.62	1.30	0.4	**7.29**	**6.49**	**5.75**
102517CF	XFR1602SB	FS16150	115/230	2.4	8V @ .15A	8V @ .30A	16VCT @ .15A	1.17	1.38	1.20	0.3	**6.95**	**6.25**	**5.59**
221284CF	DSW-316	FS16150	115/230	2.5	8V @.15A	8V @ .30A	16VCT @ .15A	1.38	1.13	1.19	0.3	**5.95**	**4.95**	**4.25**
210921CF	14A-10-Z0B21	—	115/230	10.0	10V @ .05A	10V @ 1.0A	20VCT @ 0.5A	1.88	1.56	1.38	0.5	**7.49**	**6.75**	**6.09**
210948CF	DPC20-60B13	—	115/230	1.2	10V @ .06A	10V @ .12A	20VCT @ .06A	1.63	1.25	1.38	0.2	**5.79**	**5.19**	**4.69**
210956CF	DST2-24-845	—	115/230	1.1	12V @ .045A	12V @ .09A	24VCT @ .045A	1.13	1.13	0.94	0.2	**6.49**	**5.85**	**5.25**
221305CF	DSW-324	FS24100	115/230	2.5	12V @ .10A	12V @ .20A	24VCT @ .10A	1.38	1.13	1.19	0.3	**5.95**	**4.95**	**4.25**
176090CF	SPT41240-120	FS24250	115/230	6.0	12V @ .25A	12V @ .50A	24VCT @ .25A	1.33	1.63	1.59	0.5	**6.95**	**6.25**	**5.59**
102592CF	XFR2405SB	FS24500	115/230	12.0	12V @ .50A	12V @ 1.0A	24VCT @ .50A	1.58	1.90	1.46	0.7	**8.79**	**7.95**	**5.49**
210930CF	PC34-35-B21	—	115	1.2	17V @ .035A	17V @ .07A	34VCT @ .035A	1.38	1.13	1.19	0.2	**6.79**	**6.09**	**5.49**
210964CF	LP40-300-B14	—	115/230	12.0	20V @ .30A	20V @ 0.6A	40VCT @ 0.3A	2.50	2.00	1.07	0.7	**9.95**	**8.95**	**7.95**
209015CF	ST-6-48	—	115	19.2	24V @ .40A	24V @ .80A	48VCT @ .40A	1.88	2.25	1.40	0.8	**8.95**	**8.09**	**7.25**
203318CF	P8616	—	115/230	24.0	24V @ .50A	24V @ 1.0A	48VCT @ .50A	1.96	2.25	2.70	1.5	**6.95**	**6.25**	**5.59**

Quick-Connect Power Transformers

- Quick-connect transformers are bobbin wound for smaller size and reduced electrostatic shielding requirements
- Terminals: quick connect, solder
- Input voltage: 115/230VAC, 50-60Hz

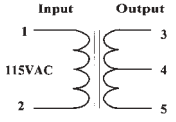
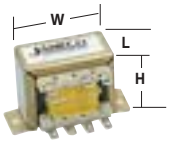


Fig. 1



104387CF

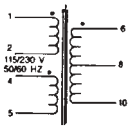


Fig. 2

Part Number	Mfr. Cross Ref. No.	Triad Cross	Fig.	Input Voltage	Output Voltage	VA Cap	Size of Connect	Dimensions L"	W"	H"	Wt. (lbs.)	Pricing 1	10	100
164110CF	241-3-10	F310	1	115VAC	10VCT @ 0.25A	2.4	0.187"	.59	1.45	2.00	0.2	**$4.95**	**$4.39**	**$3.69**
104387CF	XFR1225Q	FD612	2	115/230VAC	12.6VCT @ 2.5A	31.5	0.187"	1.75	2.33	2.00	1.3	**11.95**	**10.79**	**9.69**
104408CF	XFR1635Q	FD716	2	115/230VAC	16VCT @ 3.5A	56.0	0.187"	2.00	2.70	2.30	1.8	**12.95**	**11.69**	**10.49**
101864CF	XFR2424Q	FD724	2	115/230VAC	24VCT @ 2.4A	57.6	0.187"	1.87	2.70	2.25	1.7	**11.95**	**10.79**	**9.69**
221364CF	P-8663	F193U	1	117VAC	24VCT @ 4A	96.0	0.187"	2.81	3.13	3.81	4.0	**18.95**	**17.85**	**14.95**
221410CF	P-8666	F226U	1	117VAC	24VCT @ 12A	288.0	0.187"	4.63	3.75	4.63	11.2	**41.95**	**39.15**	**29.85**
104416CF	XFR3615Q	FD736	2	115/230VAC	36VCT @ 1.5A	54.0	0.187"	1.90	2.70	2.30	1.8	**9.95**	**8.99**	**8.09**

115VAC and 115/230VAC Power Transformers

Power transformers have both single and dual-voltage input and center-tapped outputs. This makes them the perfect choice for power supply design or for use in transformer, rectifier, and filter circuits.

- Primary: 115VAC or 115/230VAC, 50-60Hz

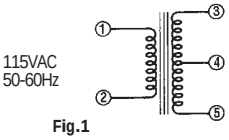


Fig.1

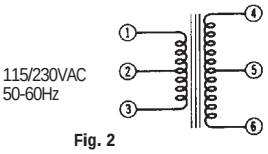


Fig. 2

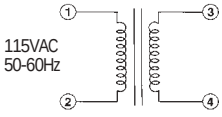
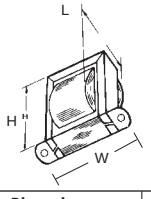


Fig. 3





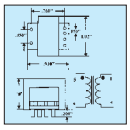
29225CF

Part Number	Mfr. Cross Ref. No.	Triad Cross	Primary Color Code			VA Cap	Secondary Voltage	Secondary Color Code			Lead Type	Fig.	Dimensions L"	W"	H"	Wt. (lbs.)	Pricing 1	10	100
102162CF	XFR6102	F314X	Black	Yellow*	Red	7.6	6.3VCT @ 1.2A	White	Black*	White	Wire	2	1.56	1.96	1.67	0.8	**$8.49**	**$7.65**	**$6.89**
105523CF	XFR0910	—	Black	White*	Red	9.0	9VCT @ 1A	Blue	Black*	Blue	Wire	2	1.79	1.96	1.66	0.7	**6.95**	**6.25**	**5.59**
221401CF	P-8391	F216X	Black	—	Black	4.2	12VAC @ 0.35A	White	—	White	Wire	3	1.38	2.38	1.38	0.4	**5.95**	**5.59**	**4.69**
221399CF	P-8657	F218X	Black	—	Black	24.0	12VAC @ 2A	White	—	White	Wire	3	2.13	3.25	2.00	1.3	**9.15**	**8.49**	**7.15**
221356CF	P-8658	F219X	Black	—	Black	48.0	12VAC @4A	White	—	White	Wire	3	2.25	4.00	2.63	2.3	**12.95**	**11.95**	**9.95**
29225CF	XFR122	F44X	Yellow	—	Yellow	25.2	12.6VCT @ 2A	Blue	Red*	Black	Wire	1	2.12	2.33	1.96	1.5	**9.95**	**8.99**	**8.09**
102154CF	XFR1220	F344X	Black	Yellow*	Red	25.2	12.6VCT @ 2A	White	Black*	White	Wire	2	2.35	2.32	1.97	1.5	**10.95**	**9.89**	**8.89**
149770CF	XFR1240	F3181U	Black	Red*	Yellow	50.4	12.6VCT @ 4A	White	Black*	White	Wire	2	2.45	2.70	2.24	2.2	**12.95**	**11.69**	**10.49**
102120CF	XFR124	F181U	Black	—	Black	50.4	12.6VCT @ 4A	White	Black*	White	Wire	1	2.53	3.08	2.61	2.7	**12.95**	**11.69**	**10.49**
105531CF	XFR1810	—	Blue	Red*	Black	18.0	18VCT @ 1A	Yellow	Black*	Yellow	Wire	2	2.32	2.05	1.90	1.2	**6.95**	**4.55**	**3.55**
149956CF	XFR1820	—	Black	Red*	Yellow	36.0	18VCT @ 2A	White	Black*	White	Wire	2	2.26	2.66	2.28	1.8	**8.95**	**7.95**	**6.95**
221381CF	P8396	—	Black	—	Black	9.6	24VCT @ 0.4A	White	Black*	White	Wire	1	1.63	2.8	1.5	0.6	**7.25**	**6.69**	**5.59**
102111CF	XFR2410	F346X	Black	Yellow*	Red	24.0	24VCT @ 1A	White	Black*	White	Wire	2	2.22	2.33	1.97	1.5	**8.95**	**8.09**	**7.25**
221372CF	P-8662	F192X	Black	—	Black	48.0	24VCT @ 2A	White	Black*	White	Wire	1	2.38	4.00	2.62	2.3	**11.95**	**10.95**	**9.19**
112512CF	XFR242N	F229X	Black	—	Black	48.0	24VAC @ 2A	White	—	White	Wire	3	1.75	2.75	2.25	1.8	**9.79**	**8.85**	**7.95**
99653CF	XFR242	—	Red	—	Red	49.2	24.6VCT @ 2A	Blue	Yellow*	Blue	Wire	1	2.44	2.70	2.30	2.5	**10.95**	**9.89**	**8.89**
102103CF	XFR2520	F341X	Black	White*	Red	50.4	25.2VCT @ 2A	Orange	Black*	Orange	Wire	2	2.45	2.67	2.26	2.8	**14.95**	**13.49**	**12.15**
149796CF	XFR2820	F3185U	Black	Red*	Yellow	56.0	28VCT @ 2A	White	Black*	White	Wire	2	2.45	2.70	2.24	2.3	**12.95**	**11.69**	**8.59**

* Center tap

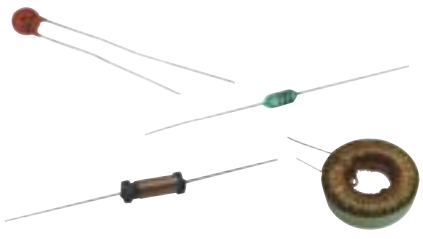
Voice/Data Coupling Transformer

- Pri./Sec. impedance: 600Ω
- Turns ratio: ±2%
- Resistance (Pri./Sec.): 63Ω/88Ω
- Frequency response: 300-3500Hz (±0.5dB)



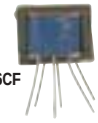
Part No.	Product No.	1	10	100
164128CF	SPT115	$1.29	$1.19	$1.05

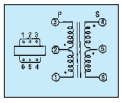
For Inductors, Chokes and Thermistors see page 91



Modem Coupling Transformers

- Insulation resistance: 100MΩ
- Vacuum wax impregnated
- ±20% impedance matching
- ±20% DC resistance matching
- Core type: EI-14
- Hipot tested: 1000VAC


125356CF


125356CF

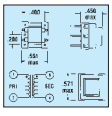
Part No.	Mfr. Cross Reference No.	Impedance (Ω) Primary	Impedance (Ω) Secondary	Resistance (Ω) Primary	Resistance (Ω) Secondary	Pricing 1	Pricing 10	Pricing 100
125356CF	XFR6006A14	600CT	600CT	65	55	$1.29	$1.18	$1.08
205962CF	60-282-0	1.2KCT	8	45	1.5	1.69	1.49	1.39

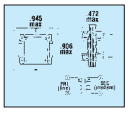
Modem Coupling Transformers

- Dielectric strength: 1250VAC


141621CF

SALE


141621CF


117760CF

Part Number	Mfr. Cross Ref. No.	Impedance (Ω) Primary	Impedance (Ω) Secondary	Resistance (Ω) Primary	Resistance (Ω) Secondary	Insertion Loss	Pricing 1	Pricing 10	Pricing 100
141621CF	671-8255	600	600	46.5	67.6	1.25dB @ 1kHz	$1.95	$1.79	$1.35
199540CF	671-8079	600	301	150	150	3.00dB @ 1kHz	1.65	1.49	1.35
117760CF	671-8014	600	600	108	120	2.50dB @ 1kHz	2.15	1.95	1.75
206391CF	TTC-105	600	600	71	117	2.50dB max. @ 800Hz to 3.5kHz	2.95	2.59	1.95

See pages 45 - 48 for Current Sensing Transformers, Power Transformers and Variable Transformers

International Step-Up/Step-Down Auto and Isolation Transformers

- Wide selection to meet your power requirements


Fig. 1



Fig. 2


Fig. A Plug


Fig. B Plug


Output Receptacle

Part Number	Mfr. Cross Ref. No.*	Fig.	Type	Primary Voltage	Secondary Voltage	Power (VA)	Dimensions H"	Dimensions W"	Dimensions D"	Weight (lbs.)	Pricing 1	Pricing 10	Pricing 100
99573CF	AC110V50	1/A	auto	220VAC	110VAC	50	2.50	1.63	1.33	0.7	$9.95	$8.99	$8.09
85016CF	AC110V300	2/A	auto	220VAC	110VAC	300	3.50	3.05	3.95	4.8	27.95	24.95	22.49
111851CF	AC110V500	2/A	auto	220VAC	110VAC	500	3.99	3.60	4.84	8.5	34.95	31.49	28.95
221250CF	GSD-1000	2/A	auto	220VAC	110VAC	1000	4.63	3.81	6.06	17.0	83.95	74.95	60.89
142906CF	AC110V1500	2/A	auto	220VAC	110VAC	1500	5.25	4.50	5.75	15.2	79.95	71.95	64.95
99477CF	AC220V50	1/B	auto	110VAC	220VAC	50	2.50	1.63	1.33	0.7	8.95	8.09	7.25
221233CF	P8638	2/B	auto	110VAC	220VAC	125	3.13	2.50	3.00	3.0	28.95	26.55	22.35
85008CF	AC220V300	2/B	auto	110VAC	220VAC	300	3.50	3.05	3.95	4.8	27.95	24.95	22.49
221217CF	P8689	2/B	auto	110VAC	220VAC	1000	4.63	3.75	6.13	17.0	61.95	57.55	43.85
221313CF	G1SD-500	2/A	isolation	220VAC	110VAC	500	4.69	3.75	6.00	16.0	78.95	69.95	57.49
222092CF	G1SD-1000	2/A	isolation	220VAC	110VAC	1000	5.38	4.38	8.13	31.0	149.95	121.95	112.79
221348CF	G1S-250	2/B	isolation	110VAC	110VAC	250	4.69	3.75	4.38	9.0	68.95	63.49	49.65
221330CF	G1S-500	2/B	isolation	110VAC	110VAC	500	4.69	3.75	6.00	16.0	78.95	69.95	57.49
221321CF	G1S-1000	2/B	isolation	110VAC	110VAC	1000	5.38	4.38	8.13	31.0	149.95	121.95	112.79

* Manufacturer may vary

International Power Cords

- 3-conductor detachable power cords
- Excellent resistance to jacket abrasion
- Voltage rating: 300 volts
- BSI: British Standard Institution

Cord Configuration Chart – End 1


A

Cord Configuration Chart – End 2


117911CF (Fig. 1)


174633CF (Fig. 2)

Part Number	Mfr. Cross Reference No.*	Country	Agency Approvals	Cord Plug Fig. End 1	Cord Plug Fig. End 2	Length	Cord Color	Conductors	Cord Type	Pricing 1	Pricing 10	Pricing 100	Pricing 250
117911CF	PCVDE-6B	Europe	All in Fig. 3	A	1	6 ft.	Black	3/.75mm²	H05VVF	~~$5.45~~ $5.49	$4.95	$4.45	$4.05
174633CF	21071H5182	UK/Ireland	BSI	A	2	8 ft.	Black	3/1.0mm²	H05VVF	6.95	6.29	5.05	3.79

* Manufacturer may vary

European Agency Approvals

Germany	VDE	
Austria	OVE	
Belgium	CEBEC	
Denmark	DEMKO	
Finland	FIMKO	
France	LCIE	
Netherlands	KEMA	
Norway	NEMKO	
Sweden	SEMKO	
Switzerland	SEV	

Fig. 3



Opening an account is easy!!

Corporate Customers

Call 1-800-831-4242 for details today.

Power Transformers and Variable Transformers

6VAC/9VAC Dual Output Power Transformer



12VA

- Input voltage: 120VAC
- Output voltage: 6VAC @ 500mA center tap (blue wires); 9VAC @ 1A center tap (yellow wires)
- Size: 2.1"L x 3.2"W x 2.0"H • Weight: 1.3 lbs.

Part No.	Mfr. Cross Ref. No.	1	10	100
183089CF	YS57H-099FAA	$4.95	$3.99	$2.99

120VAC to 120VAC Isolation Transformer



300VA

- Input voltage: 120VAC @ 60Hz
- Input connector: 5.5' cord with 2-prong plug
- Output voltage: 120VAC @ 2.5A (isolated)
- Size: 4.2"H x 3.2"W x 4.6"D • Weight: 7.0 lbs.

Part No.	Mfr. Cross Ref. No.	1	10	100
181315CF	ITR300	$44.95	$33.75	$23.65

EMI Suppression Cores with Case



Reduce Electro Magnetic Interference (EMI) with a snap of these suppression cores around a power cord or data cord. Easy to install and an affordable way to reduce EMI without redesigning your product.

Part No.	Size (OutDia. x InDia. x L)	1	10	100
218173CF	.64" x .20" x 1.15"	$.99	$.89	$.79
217841CF	.78" x .34" x 1.40"	1.45	1.29	1.15

320VA Variable AC Transformer



- Input voltage: 110VAC @ 60Hz (using pin 1-2) 110VAC @ 50Hz (using pin 1-4)
- Matching input/output terminals: P/N 103667CF and 109111CF (disconnect .25" solderless terminals), pg 123
- Maximum current: 2.5A • Panel mount
- Size: 2.8"Dia. x 2.1"H • Shaft length: 0.5"
- Weight: 2.5 lbs. • One-year warranty

Includes: 3 disconnect .25" solderless terminals

Part No.	Description	1	10	50
149323CF	320VA variable	$53.95	$48.59	$43.75

550VA Variable AC Transformer



- Input voltage: 110VAC @ 60Hz
- Output voltage: 0-140VAC
- Rated current: 5A
- Panel mount
- Input/output terminals: binding post with 0.188" diameter post
- Size: 4.3"Dia. x 4.0"H
- Weight: 6.8 lbs. • One-year warranty

Part No.	Description	1	10	50
152936CF	550VA variable ~~$74.95~~	$64.95	$58.49	$52.65

We'll match the advertised price of any like product.

Jameco's Low-Price Guarantee

It's that simple!

500VA & 2000VA Variable Transformers



169640CF



169658CF

- Input voltage: 110VAC @ 60 Hz
- Power: 500 or 2000VA
- Output voltage: 0 to 130VAC
- Output analog voltmeter
- Input conn.: 3-prong plug w/ 5' cord
- Output conn.: 3-prong outlet type
- Lighted on/off power switch

169640CF: • 5A @ 250V fuse
- Size: 8.3"L x 6.5"W x 7.0"H
- Weight: 15.6 lbs.

169658CF: • 20A @ 250V fuse
- Size: 9.8"L x 8.0"W x 7.0"H • Weight: 26.5 lbs.

Part No.	Description	1	10	50
169640CF	500VA transformer	$84.95	$76.49	$68.85
169658CF	2000VA transformer	124.95	112.49	101.25

500-2000VA Variable Transformers



121275CF

- Input: 110VAC or 220VAC
- Power: 500-2000VA
- Output: 0-240VAC
- Banana/screw input terminals
- Universal US/European output plugs
- Lighted on/off power switch

Part No.	Fuse	Size (L" x W" x H")	Wt. (lbs.)
121275CF	3A/250V (P/N 69438CF)	5.3 x 7.3 x 7.0	10.4
129007CF	5A/250V (P/N 10401CF)	9.4 x 6.5 x 7.7	14.8
152581CF	10A/250V (P/N 69462CF)	9.0 x 7.0 x 7.7	19.8

Part No.	Description	1	10	50
121275CF	500VA transformer	$79.95	$69.95	$62.95
129007CF	1000VA transformer	164.95	148.49	133.65
152581CF	2000VA trans.	174.95	158.45	139.95

Power Entry Filters and AC Receptacles

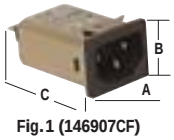


Fig.1 (146907CF)

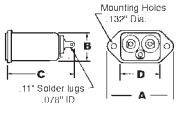


Fig. 2 (Solder Terminals)

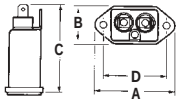


Fig. 3 (Fast-on Terminals)



Fig. 4 (210913CF)

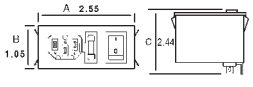


Fig. 5 (Cut out)



Fig. 6 (203140CF)

• Frequency: 50/60Hz

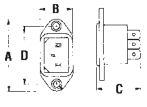


Fig. 7 (Male)

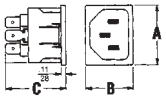


Fig. 8 (Female)

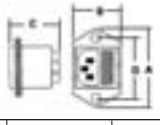


Fig. 9 (173770CF)

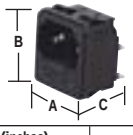


Fig. 10 (117444CF)



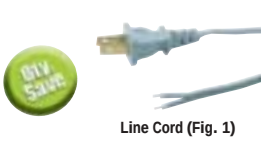
Fig. 11 (184903CF)

Part Number	Mfr. Cross Ref. No.	Corcom Cross	Description	Fig.	Current (A)	Voltage (VAC)	Terminals	Agency Approvals	Terminal Size	Dimension (inches) A	B	C	D	Pricing 1	10	100	500
146907CF	03DENG3B*		Power entry filter (snap-in)	1	3	250	fast-on	UL/CSA/VDE	.25"	1.25	0.95	2.23	N/A	$4.95	$4.49	$3.59	$2.69
150615CF	03AC1	3EF1	Power entry filter, straight (flanged)	2	3	250	solder	UL/CSA/VDE	.16"	1.89	0.88	2.58	1.58	5.95	4.79	3.59	2.55
42454CF	06AC1	6EF1	Power entry filter, straight (flanged)	2	6	250	solder	UL/CSA/VDE	.16"	1.96	0.88	2.06	1.58	8.95	8.09	7.25	6.55
165016CF	SUP-J15G-E-2		Power entry filter, straight (flanged)	2	15	250	solder	UL/CSA/VDE	.16"	1.89	0.88	2.18	1.58	5.95	5.39	4.85	4.35
40601CF	03AE1*	3EF1F	Power entry filter, straight (flanged)	3	3	250	fast-on	UL/CSA/VDE	.25"	1.97	0.90	2.16	1.58	5.95	4.79	3.59	2.55
63132CF	06AE1	6EF1F	Power entry filter, straight (flanged)	3	6	250	fast-on	UL/CSA/VDE	.16"	1.96	0.88	2.06	1.58	~~$7.95~~ 6.95	6.29	5.65	5.09
217744CF	10AE1	10EF1F	Power entry filter, straight (flanged)	3	10	250	fast-on	UL/CSA/VDE	.25"	1.96	0.89	2.23	1.58	9.95	8.95	8.09	7.29
220206CF	10GEEG3E		Power entry filter, straight (flanged)	3	10	250	solder	UL/CSA/VDE	.16"	1.96	0.87	2.16	1.58	8.49	7.65	6.89	6.19
210913CF	01GEEW3E		Power entry filter, straight (flanged)	4	1	250	wire	UL/CSA/VDE	4.1"	2.05	0.99	1.78	1.58	5.95	4.79	3.59	2.55
212206CF	A6-12S10E		Power entry filter, fused w/ switch (snap-in)	5	6	250	fast-on	UL/CSA/VDE	.25"	2.55	1.05	2.44	N/A	9.95	8.95	7.95	6.95
203140CF	F6-12S10E[1]		Power entry filter, fused w/ switch (snap-in)	6	6	250	fast-on	UL/CSA/VDE	.25"	2.55	1.05	2.82	N/A	11.95	10.95	9.95	8.95
147109CF	42R02		AC power inlet (male) snap-in	7	15	250	fast-on	UL/CSA/VDE	.25"	1.22	0.94	1.13	N/A	~~$.89~~ .26	.23	.21	.19
16651CF	JR101		AC power inlet (male) flanged	7	15	250	fast-on	UL/CSA/VDE	.187"	1.96	0.89	1.07	1.58	.79	.71	.57	.41
147900CF	P0707*		AC power inlet (male) flanged	7	15	250	solder	UL/CSA/VDE	.16"	1.96	0.89	1.04	1.58	.75	.68	.59	.55
218288CF	0708-1-CQ		AC power outlet (female) flanged	8	10	250	fast-on	UL/CSA/VDE	.189"	1.97	1.14	1.27	1.58	.89	.79	.72	.65
173770CF	6200-21		AC power inlet (male) fused (flanged)	9	10	250	fast-on	UL/CSA/VDE	.136"	1.73	1.34	1.00	1.41	.79	.69	.59	.39
117444CF	0717[2]		AC power inlet (male) fused (snap-in)	10	10	250	fast-on	UL/CSA/VDE	.187"	1.18	1.30	1.21	N/A	1.95	1.79	1.59	1.45
184903CF	42R363152IOU		AC power inlet (male) w/ switch (snap-in)	11	15	250	fast-on	UL/CSA/VDE	.25"	1.30	1.58	1.42	N/A	~~$2.95~~ 1.95	1.69	1.49	1.35

* Manufacturer may vary [1] High normal mode rejection [2] Includes spare fuse holder – Fuse type 5mm x 20mm (250V)

- Molded connectors
- Excellent resistance to jacket abrasion
- Temperature: -20°C to +60°C
- Voltage rating: 300 volts

AWG	Volts	Amps	VA
18	125	10	1250
16	125	12	1500
14	125	15	1875


Line Cord (Fig. 1)


Configuration "8" Laptop Power Cord (Fig. 2)


Configuration "D" Laptop Power Cord (Fig. 3)


Power Cord w/ pigtail (Fig. 4)


160995CF (Fig. 5)


184815CF (Fig.6)


RFI Power Cord (Fig. 7)


Right Angle Computer Power Cord (Fig. 8)


Piggy-Backed Computer Power Cord (Fig. 9)


Power Supply Extension Cord (Fig. 10)


Monitor Power Adapter Cord (Fig. 11)


Hospital Grade Cord (Fig. 12)


173884CF (Fig. 13)


Power Strip Saver (Fig. 14)


Power Strip Saver II (Fig. 15)

Part Number	Mfr. Cross Reference No.	Description	Weight (lbs.)	Agency Approvals	Plug Fig.	Length	Color	AWG	Cord Type*	Pricing 1	10	100	250
152186CF	17106BG	2-conductor power cord with pigtail	.20	UL/CSA	1	6'	Beige	18/2	SPT-2	**$1.09**	**$.98**	**$.78**	**$.59**
124433CF	ST008	2-conductor power cord with pigtail	.16	UL/CSA	1	6'	Black	18/2	SPT-2	**1.15**	**.99**	**.89**	**.79**
42041CF	17106	2-conductor power cord with pigtail with strain relief	.25	UL/CSA	1	6'	Black	18/2	SPT-2	**1.15**	**.99**	**.89**	**.79**
146309CF	PC182J6	2-conductor power cord with pigtail (round)	.31	UL/CSA	1	6'	Black	18/2	SJT	**.99**	**.79**	**.59**	**.42**
189587CF	VW-1	2-conductor "8" style power cord for laptops and power supplies	.30	UL/CSA	2	6'	Black	18/2	SPT-2	**2.95**	**2.49**	**2.15**	**1.79**
200791CF	LL114039	2-conductor "D" style power cord for laptops and power supplies	.30	UL/CSA	3	6'	Black	18/2	SPT-2	**2.95**	**2.69**	**2.15**	**1.15**
38009CF	17237	3-conductor power cord with pigtail	.31	UL/CSA	4	6'	Gray	18/3	SVT	**2.49**	**2.25**	**1.95**	**1.75**
173809CF	17405	3-conductor power cord with pigtail	.39	UL/CSA	4	6'	Gray	18/3	SJT	**2.95**	**2.49**	**2.25**	**1.95**
37997CF	17236	3-conductor power cord with pigtail	.30	UL/CSA	4	6'	Black	18/3	SVT	**2.79**	**2.32**	**2.11**	**1.99**
159409CF	17405B	3-conductor power cord with pigtail	.37	UL/CSA	4	6'	Black	18/3	SJT	~~$2.95~~ **2.59**	**2.15**	**1.95**	**1.79**
38025CF	17238	3-conductor power cord with pigtail	.39	UL/CSA	4	8'	Black	18/3	SVT	**3.29**	**2.75**	**2.45**	**2.25**
102007CF	17535B	3-conductor power cord with pigtail	.49	UL/CSA	4	10'	Black	18/3	SVT	~~$3.49~~ **3.25**	**2.75**	**2.49**	**2.25**
196285CF	LL40378	3-conductor power cord with pigtail	.80	UL/CSA	4	10'	Black	16/3	SJT	~~$3.95~~ **3.49**	**2.79**	**2.09**	**1.49**
166924CF	17516	3-conductor power cord with pigtail	.67	UL/CSA	4	6' 7"	Black	14/3	SJT	**3.95**	**3.55**	**3.19**	**2.79**
100271CF	17629B	3-conductor power cord with pigtail	.88	UL/CSA	4	9'	Black	14/3	SJT	**4.25**	**3.55**	**3.25**	**2.89**
160995CF	17720	3-conductor power cord with pigtail (shielded)	.44	UL/CSA	5	8'	Black	18/3	SVT	**2.49**	**2.25**	**2.05**	**1.85**
184815CF	17629BR	3-conductor right angle power cord with pigtail	.77	UL/CSA	6	7'	Black	14/3	SJT	**2.15**	**1.89**	**1.69**	**1.55**
103747CF	17248	3-conductor power supply cord	.34	UL/CSA	7	6'	Gray	18/3	SVT	~~$3.79~~ **3.59**	**3.09**	**2.75**	**2.65**
213874CF	17660BG	3-conductor power supply cord (shielded)	.40	UL/CSA	7	6'	Beige	18/3	SVT	**3.59**	**3.25**	**2.95**	**2.65**
38041CF	17249	3-conductor power supply cord	.37	UL/CSA	7	6'	Beige	18/3	SVT	**3.49**	**3.15**	**2.79**	**2.49**
38050CF	17250	3-conductor power supply cord	.36	UL/CSA	7	6'	Black	18/3	SVT	**3.75**	**3.25**	**2.75**	**2.49**
161761CF	17742	3-conductor power supply cord (shielded)	.40	UL/CSA	7	6'	Black	18/3	SVT	**4.49**	**4.05**	**3.65**	**3.29**
132118CF	17500	3-conductor power supply cord	.44	UL/CSA	7	6'	Black	18/3	SJT	**4.49**	**4.05**	**3.65**	**3.29**
117583CF	17502	3-conductor power supply cord	.37	UL/CSA	7	8'	Gray	18/3	SVT	**3.49**	**3.15**	**2.79**	**2.49**
171096CF	17758	3-conductor power supply cord	.60	UL/CSA	7	8'	Black	18/3	SJT	**3.95**	**3.55**	**3.19**	**2.89**
229219CF	9350819	3-conductor power supply cord (shielded)	.45	UL/CSA	7	8'	Black	18/3	SJT	**4.49**	**4.05**	**3.65**	**3.29**
102023CF	17501V	3-conductor power supply cord	.55	UL/CSA	7	10'	Black	18/3	SVT	~~$4.25~~ **3.95**	**3.39**	**3.09**	**2.79**
192727CF	17501J	3-conductor power supply cord	.64	UL/CSA	7	10'	Black	18/3	SJT	**3.95**	**3.59**	**2.89**	**2.15**
190625CF	37805	3-conductor power supply cord (shielded)	.75	UL/CSA	7	10'	Beige	18/3	SJT	**3.95**	**3.59**	**2.89**	**2.15**
163361CF	6952299	3-conductor power supply cord	.33	UL/CSA	7	14'	Black	18/3	SJT	**5.39**	**4.85**	**4.39**	**3.95**
159361CF	17602	3-conductor power supply cord	.57	UL/CSA	7	6'	Black	16/3	SJT	**3.79**	**3.15**	**2.79**	**2.49**
142607CF	17502	3-conductor power supply cord (shielded)	.63	UL/CSA	7	6'	Black	16/3	SJT	**4.19**	**3.79**	**3.39**	**3.05**
125541CF	17504	3-conductor power supply cord	.71	UL/CSA	7	6' 7"	Black	14/3	SJT	**4.95**	**4.45**	**3.55**	**2.69**
117356CF	8120-6177	3-conductor right angle power supply cord	.41	UL/CSA	8	6'	Gray	18/3	SVT	**3.95**	**3.19**	**2.39**	**1.69**
38076CF	17250R	3-conductor right angle power supply cord	.54	UL/CSA	8	6'	Black	18/3	SVT	**3.49**	**3.15**	**2.85**	**2.55**
173251CF	1725ORS	3-conductor right angle power supply cord (shielded)	.40	UL/CSA	8	6'	Black	18/3	SVT	**3.29**	**2.99**	**2.69**	**2.39**
177383CF	17507	3-conductor right angle power supply cord	.66	UL/CSA	8	10'	Black	18/3	SJT	**3.95**	**3.59**	**2.89**	**2.15**
84937CF	17669-6	3-conductor piggy backed computer power cord	.47	UL/CSA	9	6'	Black	18/3	SJT	**6.95**	**6.29**	**5.05**	**3.79**
28468CF	PEC	3-conductor computer power supply extension cord	.36	UL/CSA	10	6'	Black	18/3	SVT	**4.39**	**3.95**	**3.59**	**3.25**
121291CF	PEC2	3-conductor computer power supply extension cord	.55	UL/CSA	10	8'	Black	18/3	SJT	**3.95**	**3.19**	**2.39**	**1.69**
175855CF	PECUL10	3-conductor computer power supply extension cord	.53	UL/CSA	10	10'	Black	18/3	SVT	**2.95**	**2.39**	**1.79**	**1.25**
177447CF	MPC1	3-conductor monitor power adapter cord	.16	UL/CSA	11	1'	Black	18/3	SVT	**2.95**	**2.49**	**2.15**	**1.79**
26382CF	MPC6	3-conductor monitor power adapter cord	.40	UL/CSA	11	6'	Black	18/3	SVT	~~$3.95~~ **1.65**	**1.49**	**1.35**	**1.35**
196277CF	E55333	3-conductor power cord w/ hospital grade male (green dot)	.56	UL/CSA	12	6' 6"	Gray	18/3	SJT	**2.95**	**2.69**	**2.15**	**1.59**
132011CF	17006G	3-conductor power cord w/ hospital grade male (green dot)	.82	UL/CSA	12	10'	Gray	16/3	SJT	**8.45**	**7.65**	**6.15**	**4.59**
115078CF	17006	3-conductor power cord w/ hospital grade male (green dot)	.84	UL/CSA	12	10'	Black	16/3	SJT	**8.95**	**8.09**	**7.25**	**6.55**
173884CF	3472WJ698G	3-conductor power cord w/ hospital grade male rt ang (green dot)	.85	UL/CSA	13	9'	Gray	16/3	SJT	**7.95**	**7.19**	**5.75**	**4.35**
199777CF	PSS-1	3-conductor power cord (power strip saver)	.16	UL/CSA	14	1'	Black	18/3	SVT	**1.69**	**1.55**	**1.39**	**1.25**
208338CF	SY0527BG	3-conductor power cord (power strip saver)	.16	UL/CSA	14	1'	Beige	18/3	SVT	**1.69**	**1.45**	**1.09**	**1.09**
208346CF	GPR-2006	3-conductor power cord ("Y" type power strip saver)	.38	UL/CSA	15	2'	Black	18/3	SVT	**2.89**	**2.75**	**2.59**	**2.59**

***Thermoplastic Cord Jacket Type: SPT-2 (Flat): Junior duty; SVT (Round): Light service; SJT (Round): Junior service**

AC-to-DC Regulated Switching Table-Top Power Supplies

Color Code Legend: New | Sale | Qty Save | Closeout

See page 47 for International Power Cords


196146CF


155205CF


206455CF


159353CF


173825CF

SALE

Polarity 1 ⊕—●—⊖ (center negative)


Female


Male

Polarity 2 ⊖—●—⊕ (center positive)

Power	Part Number	Mfr. ▲	Mfr. Cross Ref. No. ▲	Output Pwr (W)	Output Volts (VDC)/ Current (A)	Input VAC@Hz	Output Plug/Connector ID x OD/Plug Type/Polarity F = female; M = male	Pwr. Ind.	Color	Size (L" x W" x H")	Cords* (DC/AC)	Wt. (lbs.)	Agency Approvals	Pricing 1	10	50	100
2-Wire AC Input – Regulated Switching																	
5-25 Watt	221823CF	Mean Well	P15A-OP2JR	7	+3.3/2.2	90-264@47-63	2.1mm x 5.5mm F **2**	Yes	Black	3.6 x 1.6 x 1.5	6'/6'	0.5	UL/CUL/TUV/CE	$19.49	$17.59	$15.79	$14.19
	221591CF	Mean Well	P30B-OP2JR	12	+3.3/3.6	90-264@47-63	2.1mm x 5.5mm F **2**	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.8	UL/CUL/TUV/CE	21.95	19.79	17.79	15.99
	211300CF	Horizon	SSL20-7605	20	+5/4.0	100-240@50-60	2.5mm x 5.5mm F **2**	No	Black	4.2 x 2.3 x 1.0	6'/ **3**	1.5	UL/CSA/VDE/CE	24.95	19.99	14.99	10.49
	221604CF	Mean Well	P30B-1P2JR	20	+5/4.0	90-264@47-63	2.1mm x 5.5mm F **2**	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.8	UL/CUL/TUV/CE	25.95	23.35	20.99	18.99
	195805CF	Horizon	DCR920F12	18	+9/2.0	100-240@50-60	2.1mm x 5.5mm F **2**	Yes	Black	4.2 x 2.6 x 1.4	6'/6'	0.9	UL/CUL/TUV/CE	26.95	24.29	21.85	19.65
	195768CF	Horizon	DCR920F52	18	+9/2.0	100-240@50-60	2.5mm x 5.5mm F **2**	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.9	UL/CUL/TUV/CE	22.95	20.69	18.59	16.75
	221831CF	Mean Well	P15B-3P2JR	15	+12/1.3	90-264@47-63	2.1mm x 5.5mm F **2**	Yes	Black	3.6 x 1.6 x 1.5	6'/6'	0.5	UL/CUL/TUV/CE	19.49	17.59	15.79	14.19
	221840CF	Mean Well	P15B-4P2JR	15	+15/1.0	90-264@47-63	2.1mm x 5.5mm F **2**	Yes	Black	3.6 x 1.6 x 1.5	6'/6'	0.5	UL/CUL/TUV/CE	19.49	17.59	15.79	14.19
	211174CF	Horizon	SC102TA1503	18	+15/1.2	100-240@47-63	2.5mm x 5.5mm F **2**	No	Black	4.0 x 1.9 x 1.4	6'/ **3**	0.5	UL/CUL/TUV/CE	19.95	17.95	16.19	14.55
	221858CF	Mean Well	P15B-6PJR	15	+24/0.6	90-264@47-63	2.1mm x 5.5mm F **2**	Yes	Black	3.6 x 1.6 x 1.5	6'/6'	0.5	UL/CUL/TUV/CE	19.49	17.59	15.79	14.19
	196146CF	Artesyn	SSL20-7660	14	+5/0.9, +12/0.8 -5/0.05	100-240@50-60	5-pin DIN M	Yes	Black	4.2 x 2.3 x 1.0	6'/ **3**	1.0	UL/CSA/VDE	$5.95 4.25	3.85	3.49	3.19
	196138CF	DVE	DSA-0283A	23	+5/1, +12/1.49 -5/.43	100-240@47-63	5-pin DIN M	No	Black	4.9 x 2.7 x 1.5	6'/ **3**	0.8	UL/CSA/TUV	17.95	16.19	12.95	9.69
25-60 Watt	191901CF	IPS	CUP36-12	30	+12/2.5	100-240@50-60	2.5mm x 5.5mm right angle F **2**	No	Black	4.4 x 2.0 x 0.8	4'/ **3**	0.7	UL/CUL/TUV/CE	27.95	24.95	22.49	19.95
	220311CF	Horizon	SL120300	36	+12/3.0	100-240@50-60	2.1mm x 5.5mm F **2**	Yes	Black	4.3 x 2.0 x 1.2	6'/ **3**	0.6	UL/CUL/TUV/CE	29.95	26.99	24.29	21.85
	220441CF	Horizon	SL120300RT	36	+12/3.0	100-240@50-60	2.5mm x 5.5mm right angle F **2**	Yes	Black	4.3 x 2.0 x 1.2	6'/ **3**	0.6	UL/CUL/TUV/CE	29.95	26.99	24.29	21.85
	224055CF	Horizon	SL120300-4.5	36	+12/3.0	100-240@50-60	2.1mm x 5.5mm F **2**	Yes	Black	4.3 x 2.0 x 1.2	4.5/ **3**	0.6	UL/CUL/TUV/CE	29.95	26.99	24.29	21.85
	224047CF	Horizon	SL120300RT-4.5	36	+12/3.0	100-240@50-60	2.5mm x 5.5mm right angle F **2**	Yes	Black	4.3 x 2.0 x 1.2	4.5/ **3**	0.6	UL/CUL/TUV/CE	29.95	26.99	24.29	21.85
	230498CF	Phihong	PSA60W-120	50	+12/4.2	90-264@47-63	2.1mm x 5.5mm F **2**	No	Black	4.0 x 2.5 x 1.3	6'/ **3**	0.5	UL/CUL/TUV/CE	36.49	32.85	29.55	29.55
	230501CF	Phihong	PSA60W-180	60	+18/3.3	90-264@47-63	2.1mm x 5.5mm F **2**	No	Black	4.0 x 2.5 x 1.3	6'/ **3**	0.5	UL/CUL/TUV/CE	36.49	32.85	29.55	29.55
	221612CF	Mean Well	P30B-6P2JR	27	+24/1.1	90-264@47-63	2.1mm x 5.5mm F **2**	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.8	UL/CUL/TUV/CE	25.95	23.35	20.99	18.99
	229841CF	Phihong	PSA60W-240	60	+24/2.5	90-264@47-63	2.1mm x 5.5mm F **2**	No	Black	4.0 x 2.5 x 1.3	6'/ **3**	0.5	UL/CUL/TUV/CE	36.49	32.85	29.55	29.55
	205911CF	Delta	ADP-25HB†	25	+30/0.83	100-125@50-60	2.1mm x 5.5mm F **2**	No	Black	3.5 x 2.4 x 1.2	6'/7'	1.1	UL/CUL	17.49	15.75	14.19	12.75
3-Wire AC Input – Regulated Switching																	
5-15 Watt	221807CF	MeanWell	P15A-OP2JU	7.2	+3.3/2.2	90-264@47-63	2.1mm x 5.5mm F **2**	Yes	Black	3.6 x 1.6 x 1.5	6'/6'	0.5	UL/CUL/TUV/CE	$19.95	$17.95	$16.15	$14.55
	221671CF	Mean Well	P30A-OP2JU	12	+3.3/3.6	90-264@47-63	2.1mm x 5.5mm F **2**	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.8	UL/CSA/TUV/CE	26.95	24.29	21.85	19.65
	221567CF	Mean Well	P40A-OP2JU	15	+3.3/4.5	90-264@47-63	2.1mm x 5.5mm F **2**	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.8	UL/CUL/TUV/CE	29.95	26.99	24.29	21.85
	196218CF	GlobeTek	GT210891005T3	10	+5/2.0	120-240@50-60	2.1mm x 5.5mm F **2**	No	Black	3.4 x 1.9 x 1.3	6'/ **2**	0.4	UL/CUL/TUV/CE	19.95	17.95	16.15	14.55
	224282CF	Mean Well	P15A-11P2JU	12	+5/2.4	90-264@47-63	2.1mm x 5.5mm F **2**	Yes	Black	3.6 x 1.6 x 1.5	6'/6'	0.6	UL/CSA	19.95	17.95	16.19	14.59
15-20 Watt	161568CF	Mean Well	MA15-050R	15	+5/2.5	100-240@47-63	2.1mm x 5.5mm F **2**	No	Black	3.3 x 2.0 x 1.3	4'/6'	0.4	UL/CSA/TUV	19.95	18.95	17.95	17.19
	202796CF	Mean Well	MA15-2.5R	15	+5/2.5	100-240@47-63	2.5mm x 5.5mm F **2**	No	Black	3.3 x 2.0 x 1.3	4'/6'	0.4	UL/CSA/TUV	19.95	17.95	15.95	13.95
	221786CF	Mean Well	U24S102-P2JU	15	+5/3.0	90-264@47-63	2.1mm x 5.5mm F **2**	Yes	Black	4.2 x 2.6 x 1.2	6'/6'	0.8	UL/CUL/TUV/CE	23.95	21.55	19.39	17.45
	206236CF	Netgear	A15D3-05MP	15	+5/3.0	100-240@50-60	2.5mm x 5.5mm F **2**	No	Black	3.8 x 2.1 x 1.4	5'/ **2**	0.4	UL/CSA/TUV	24.95	22.49	17.99	13.49
	228996CF	Phihong	PSA31U-050	20	+5/4.0	90-264@47-63	2.1mm x 5.5mm F **2**	No	Black	4.5 x 2.4 x 1.4	6'/ **2**	0.5	UL/CUL/TUV/CE	26.95	24.25	21.85	19.65
	155205CF	Mean Well	KA52A	20	+5/4.0	100-240@47-63	2.1mm x 5.5mm F **2**	No	Black	4.1 x 2.6 x 1.6	6'/6'	1.2	UL/CSA/TUV	26.95	24.25	21.85	19.65
	213583CF	Mean Well	P30A-1P2J	20	+5/4.0	100-240@50-60	2.1mm x 5.5mm F **2**	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.7	UL/CUL/TUV/CE	26.95	24.25	21.85	19.65
	169121CF	ATS	AD740U1050	20	+5/4.0	100-240@50-60	2.5mm x 5.5mm F **2**	No	Black	4.1 x 2.6 x 1.6	4'/ **2**	1.4	UL/CUL/TUV/CE	$27.95 24.95	22.49	19.95	17.95
	228988CF	Phihong	PSA18U-120	18	+12/1.5	90-264@47-63	2.1mm x 5.5mm F **2**	No	Black	3.9 x 2.2 x 1.2	6'/ **2**	0.5	UL/CUL/TUV/CE	22.95	20.65	18.59	16.75
	216549CF	Mean Well	KWM12F-P2JU	18	+12/1.5	100-240@47-63	2.1mm x 5.5mm F **2**	No	Black	4.0 x 1.9 x 1.5	6'/6'	0.4	UL/CUL/TUV/CE	22.95	20.65	18.59	16.75
	216531CF	Mean Well	KWM12F-P2MU	18	+12/1.5	100-240@47-63	2.5mm x 5.5mm F **2**	No	Black	4.0 x 1.9 x 1.5	6'/6'	0.4	UL/CUL/TUV/CE	26.95	24.25	21.85	19.65
	221815CF	MeanWell	P15A-4P2JU	15	+15/1.0	90-264@47-63	2.1mm x 5.5mm F **2**	Yes	Black	3.6 x 1.6 x 1.5	6'/6'	0.5	UL/CUL/TUV/CE	19.95	17.95	16.15	14.55
	221794CF	Mean Well	P15A-6P2JU	15	+24/0.6	90-264@47-63	2.1mm x 5.5mm F **2**	Yes	Black	3.6 x 1.6 x 1.5	6'/6'	0.5	UL/CUL/TUV/CE	19.95	17.95	16.15	14.55
	159353CF	Mean Well	KA60A	17	+5/1, ±12/0.5	100-240@50-60	5-pin DIN M	Yes	Black	4.1 x 2.6 x 1.5	6'/5'	1.0	UL/CSA/TUV	$39.95 36.95	33.29	29.95	26.95
20-30 Watt	213575CF	Mean Well	P40A-1P2J	25	+5/5.0	100-240@50-60	2.1mm x 5.5mm F **2**	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.7	UL/CUL/TUV/CE	29.95	26.99	24.29	21.85
	211019CF	Mean Well	KA52B	25	+9/2.78	100-240@47-63	2.5mm x 5.5mm F **2**	No	Black	4.2 x 2.6 x 1.5	6'/ **2**	0.9	UL/CSA/TUV/CE	29.95	26.99	24.29	21.85
	211027CF	Mean Well	KA52BMOD	25	+9/2.78	100-240@47-63	2.1mm x 5.5mm F **2**	No	Black	4.2 x 2.6 x 1.5	6'/ **2**	0.9	UL/CSA/TUV/CE	29.95	26.95	24.25	21.79
	173825CF	Ault	SW109	25	+9/2.78	100-250@50-60	3-pin Molex F	No	Black	5.0 x 3.0 x 1.5	5'8"/ **2**	1.3	UL/CSA/CE	$9.95 5.49	4.99	4.55	4.15
	203086CF	Ault	SW110	25	+12/2.08	100-250@50-60	2.5mm x 5.5mm F **2**	No	Black	5.1 x 3.1 x 1.6	6'/ **2**	2.0	UL/CSA/CE	24.95	22.49	19.95	17.95
	215124CF	Mean Well	U24S106-P2J	24	+15/1.6	100-240@47-63	2.1mm x 5.5mm F **2**	Yes	Black	4.2 x 2.6 x 1.2	6'/6'	0.5	UL/CUL/TUV/CE	25.95	23.39	21.05	18.95
	206455CF	Ault	SC100	25	+16/1.56	100-240@50-60	2.5mm x 5.5mm F **2**	No	Black	4.2 x 2.6 x 1.5	6'/ **2**	1.2	UL/CUL/TUV/CE	19.95	17.99	14.39	10.79
	221680CF	Mean Well	P30A-6P2JU	27	+24/1.1	90-264@47-63	2.1mm x 5.5mm F **2**	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.8	UL/CSA/TUV/CE	26.95	24.29	21.85	19.65
	203772CF	Ault	SC100	25	+48/0.52	100-250@50-60	2.5mm x 5.5mm F **2**	No	Black	4.2 x 2.6 x 1.5	6'/ **2**	0.8	UL/CUL/TUV/CE	19.95	17.99	16.19	14.55
	215087CF	Mean Well	P30A-8P2J	27	+48/0.56	100-240@50-60	2.1mm x 5.5mm F **2**	Yes	Black	4.3 x 2.6 x 1.4	6'/ **2**	0.7	UL/CSA/TUV/CE	$34.95 26.95	24.29	21.85	19.65

* See accessory table-top power cord chart on page 52 when AC cord needed; refer to [1], [2] or [3] in Cord (DC/AC) column above for correct power cord ▲ Manufacturer and Product Number may vary

3-Wire Table-Top Power Supplies Continued on Page 51

AC-to-DC Regulated Switching Table-Top Power Supplies

See page 47 for International Power Cords


211191CF


172064CF


203043CF


211107CF


229032CF

Polarity 1 ⊕—C—⊖ (center negative)


Female

Polarity 2 ⊖—C—⊕ (center positive)

Power	Part Number	Mfr.	Mfr. Cross Ref. No. ▲	Output Pwr (W)	Output Volts (VDC)/ Current (A)	Input VAC@Hz	Output Plug/Connector ID x OD/Plug Type/Polarity F = female; M = male	Pwr. Ind.	Color	Size (L" x W" x H")	Cords* (DC/AC)	Wt. (lbs.)	Agency Approvals	Pricing 1	10	50	100
3-Wire AC Input – Regulated Switching (Continued)																	
20-30 Watt	215079CF	Mean Well	P30A-8P2M	27	+48/0.56	100-240@50-60	2.5mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.7	UL/CSA/TUV/CE	$26.95	$24.29	$21.85	$19.65
	196269CF	Everglow	PSU25A13	25	+5/2.5, +12/1.0	100-240@47-63	4-pin mini DIN M	No	Black	4.2 x 2.6 x 1.4	6'/4'	1.2	UL/CUL/TUV/CE	27.95	25.19	22.65	20.39
	221751CF	Mean Well	P25A13-R1BU	25	+5/2.5; +12/1.0	90-264@47-63	5-pin DIN M	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.8	UL/CSA/TUV/CE	~~$34.95~~ 27.95	25.19	22.69	20.39
	221760CF	Mean Well	P25A14-R1BU	25	+5/2.5, +15/0.8	90-264@47-63	5-pin DIN M	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.8	UL/CUL/TUV/CE	27.95	25.19	22.69	20.39
	221778CF	Mean Well	P25A16-R1BU	25	+5/2.5, +24/0.5	90-264@47-63	5-pin DIN M	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.8	UL/CUL/TUV/CE	27.95	25.19	22.69	20.39
	189561CF	Phihong	PSM-3012G	26	+5/4, +12/0.5	100-240@50-60	5-pin mini DIN M	Yes	Beige	5.8 x 2.9 x 1.6	6'/ 1	1.3	UL/CSA	~~$12.95~~ 6.25	5.69	5.15	4.69
	190650CF	Ault	SW300	25	+5/4.0, +12/1.0	100-250@50-60	5-pin DIN M	No	Black	5.9 x 3.4 x 2.1	6'/ 2	1.5	UL/CSA/TUV	19.95	17.99	14.39	10.79
	190959CF	Mean Well	P25A13D-R1B	26	+5/2.5, +12/0.8 -12/0.3	100-240@47-63	5-pin DIN M	Yes	Black	4.1 x 2.6 x 1.4	6'/6'	1.1	CUL/TUV/CE	~~$39.95~~ 32.95	29.69	26.69	24.05
	221719CF	Mean Well	P25A14E-R1BU	25	+5/2.5, +15/0.3 -15/0.3	90-264@47-63	5-pin DIN M	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.8	UL/CUL/TUV/CE	32.95	29.69	26.69	24.05
30-40 Watt	221516CF	Mean Well	U45S102-P2JU	40	+5/8.0	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	4'/6'	1.4	UL/CUL/TUV/CE	37.95	34.19	30.79	27.69
	206527CF	Mean Well	P40A-1-1P25	30	+7.5/4.0	100-240@50-60	2.1mm x 5.5mm F 2	No	Black	4.3 x 2.7 x 1.5	6'/6'	1.5	UL/CUL/TUV/CE	29.95	26.95	23.95	21.95
	229008CF	Phihong	PSA31U-120	30	+12/2.5	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	4.5 x 2.4 x 1.4	6'/ 2	0.5	UL/CUL/TUV/CE	26.95	24.25	21.85	19.65
	155213CF	Mean Well	P40A-3P2JU	40	+12/3.3	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	5.5 x 2.3 x 1.5	6'/6'	0.7	UL/CUL/TUV	34.95	31.49	27.95	24.95
	229016CF	Phihong	PSA31U-150	30	+15/2.0	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	4.5 x 2.4 x 1.4	6'/ 2	0.5	UL/CUL/TUV/CE	26.95	24.25	21.85	19.65
	206471CF	Mean Well	P40A-4AR01	30	+15/2.0	100-240@50-60	2.5mm x 5.5mm F 2	No	Black	5.6 x 2.9 x 1.6	6'/6'	1.2	UL/CUL/TUV/CE	26.95	24.29	21.85	19.65
	221575CF	Mean Well	P40A-4P2JU	40	+15/2.7	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.8	UL/CUL/TUV/CE	35.95	32.35	29.15	26.19
	230480CF	Phihong	PSA31U-180	30	+18/1.6	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	3.9 x 2.2 x 1.2	6'/ 2	0.5	UL/CUL/TUV/CE	26.95	24.25	21.85	21.85
	229024CF	Phihong	PSA31U-240	30	+24/1.25	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	4.5 x 2.4 x 1.4	6'/ 2	0.5	UL/CUL/TUV/CE	26.95	24.25	21.85	19.65
	181884CF	Mean Well	P40A6P2J	40	+24/1.66	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	4.1 x 2.6 x 1.4	6'/6'	0.7	UL/TUV/CE	33.95	30.59	27.55	24.75
	229032CF	Phihong	PSA31U-480	30	+48/0.63	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	4.5 x 2.4 x 1.6	6'/ 2	0.5	UL/CUL/TUV/CE	26.95	24.25	21.85	19.65
	221583CF	Mean Well	P40A-8P2JU	40	+48/0.8	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	4.2 x 2.6 x 1.4	6'/6'	0.8	UL/CUL/TUV/CE	35.95	32.35	29.15	26.19
	211191CF	Westinghouse	FSA30P31	30	+5/3, ±12/0.8	85-264@47-63	5-pin DIN M	No	Black	5.8 x 3.0 x 1.7	4'/ 2	1.1	UL/CSA/TUV	29.95	23.99	17.99	12.59
	203043CF	Ault	SC200	32	+5/4, +12/1	100-240@50-60	5-pin DIN M	No	Black	5.0 x 3.0 x 1.6	6'/ 2	1.3	UL/CSA/CE	19.95	17.95	16.15	14.55
40-45 Watt	203107CF	UMEC	UP0451E-12P	45	+12/3.75	100-240@47-63	2.5mm x 5.5mm F 2	No	Black	4.7 x 2.4 x 1.4	2'6"/ 2	1.4	UL/CUL/TUV/CE	34.95	31.49	27.95	24.95
	221524CF	Mean Well	U45S105-P2JU	45	+12/3.8	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	6'/6'	1.3	UL/CSA/TUV/CE	37.95	34.15	30.75	27.65
	221532CF	Mean Well	U45S106-P2JU	45	+15/3.0	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	6'/6'	1.3	UL/CSA/TUV/CE	37.95	34.15	30.75	27.65
	221541CF	Mean Well	U45S108-P2JU	50	+24/2.1	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	6'/6'	1.3	UL/CSA/TUV/CE	37.95	34.15	30.75	27.65
	221559CF	Mean Well	U45S111-P2JU	48	+48/1.0	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	6'/6'	1.3	UL/CUL/TUV/CE	37.95	34.19	30.79	27.69
	221727CF	Mean Well	U45D201-R1BU	42	+5/3.5; +12/2.0	90-264@47-63	5-pin DIN M	Yes	Black	5.7 x 3.0 x 1.7	4'/6'	1.3	UL/CSA/TUV/CE	38.95	34.95	31.55	28.35
	221735CF	Mean Well	U45D202-R1BU	42	+5/3.5, +15/1.5	90-264@47-63	5-pin DIN M	Yes	Black	5.7 x 3.0 x 1.7	4'/6'	1.3	UL/CUL/TUV/CE	38.95	34.95	31.55	28.35
	221743CF	Mean Well	U45D203-R1BU	42	+5/3.5, +24/1.0	90-264@47-63	5-pin DIN M	Yes	Black	5.7 x 3.0 x 1.7	4'/6'	1.3	UL/CUL/TUV/CE	38.95	34.95	31.55	28.35
	155053CF	Mean Well	SPU41-13D1	41	+5/5, +12/1, -12/0.3	100-240 @ 47-63	5-pin DIN M	Yes	Black	5.5 x 3.0 x 1.6	6'/4'	1.3	UL/CSA/TUV	54.95	49.49	44.55	40.09
	211107CF	Fortron	FSA55P31	45	+5/5, +12/3 -12/0.5	85-264 @ 50-60	5-pin DIN M	Yes	Black	7.0 x 3.8 x 2.2	4'/ 2	1.6	UL/CSA/TUV	49.95	39.99	29.99	20.99
	221689CF	Mean Well	U45T303-R1BU	42	+5/3.5; +15/1.2 -15/0.3	90-264@47-63	5-pin DIN M	Yes	Black	5.7 x 3.0 x 1.7	4'/6'	1.3	UL/CSA/TUV/CE	36.95	33.25	29.95	26.95
45-60 Watt	221487CF	Mean Well	SPU50-1U	50	+5/10	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	6'/6'	2.0	UL/CUL/TUV/CE	36.95	33.95	31.95	29.49
	155230CF	Mean Well	SPU50-3	60	+12/5.0	100-240@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.6 x 2.9 x 1.5	6'/6'	1.3	UL/CSA/TUV	49.95	44.95	39.95	35.95
	221479CF	Mean Well	SPU50-4U	60	+15/4.0	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	6'/6'	2.0	UL/CUL/TUV/CE	38.49	34.65	31.19	28.09
	215116CF	Mean Well	U45S107-P2J	50	+18/2.77	100-240@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	6'/6'	1.1	UL/CUL/TUV/CE	31.95	29.95	27.95	25.49
	169076CF	Eltron	808050-00	50	+20/2.5	100-240@50-60	2.5mm x 5.5mm F 2	Yes	Black	6.7 x 3.3 x 2.3	6'/ 2	1.4	UL/CSA/TUV	22.95	18.39	13.79	9.65
	221508CF	Mean Well	L60A24-P1JU	48	+24/2.0	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.4 x 1.2	6'/6'	0.8	UL/CUL/TUV/CE	35.95	32.35	29.15	26.19
	161605CF	Mean Well	SPU50-6	60	+24/2.5	100-240@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.6 x 2.9 x 1.6	1'9"/6'	1.3	UL/CSA/TUV	44.95	39.95	35.95	32.95
	172064CF	Mean Well	SPU50-9	60	+48/1.25	100-240@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.6 x 2.9 x 1.7	6'/6'	1.3	UL/CSA/TUV	44.95	40.49	36.45	32.79
	221701CF	Mean Well	P50A13D-R1BU	50	+5/4.0, +12/2.0 -12/0.5	90-264@47-63	5-pin DIN M	Yes	Black	5.7 x 3.0 x 1.7	4'/6'	1.5	UL//CUL/TUV/CE	48.95	44.09	39.69	35.69
60-80 Watt	221428CF	Mean Well	U65S105-P2JU	80	+12/6.7	95-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	6.6 x 3.1 x 1.8	6'/6'	2.0	UL/CUL/TUV/CE	64.95	55.29	49.95	47.49
	221436CF	Mean Well	U65S106-P2JU	80	+15/5.33	95-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	6.6 x 3.1 x 1.8	6'/6'	2.0	UL/CUL/TUV/CE	64.95	55.29	49.95	47.49
	221444CF	Mean Well	U65S107-P2JU	80	+18/4.4	95-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	6.6 x 3.1 x 1.8	6'/6'	2.0	UL/CUL/TUV/CE	64.95	55.29	49.95	47.49
	221452CF	Mean Well	U65S108-P2JU	80	+24/3.3	95-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	6.6 x 3.1 x1.8	6'/6'	2.0	UL/CUL/TUV/CE	64.95	55.29	49.95	47.49
	221461CF	Mean Well	U65S111-P2JU	80	+48/1.7	95-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	6.6 x 3.1 x 1.8	6'/6'	2.0	UL/CUL/TUV/CE	64.95	55.29	49.95	47.49

* See accessory table-top power cord chart on page 52 when AC cord needed; refer to 1, 2 or 3 in Cord (DC/AC) column above for correct power cord ▲ Manufacturer and Product Number may vary

AC-to DC-Regulated Linear Table-Top Power Supplies

Color Code Legend: New, Sale, Qty Save

See page 47 for International Power Cords


211060CF


116089CF


153752CF


107326CF


163969CF


DIN M


Molex

Polarity 1 ⊕—●—⊖ (center negative)


Female


Male

Polarity 2 ⊖—●—⊕ (center positive)

SALE


Stripped

Power	Part Number	Mfr. ▲	Mfr. Cross Ref. No. ▲	Output Power (W)	Output Volts (VDC)/ Current (A)	Input VAC@Hz	Output Plug/Connector ID x OD/Plug Type/Polarity F = female; M = male	Pwr. Ind.	Color	Size (L" x W" x H")	Cords* (DC/AC)	Wt. (lbs.)	Agency Approvals	Pricing 1	10	50	100
2-Wire AC Input – Regulated Linear																	
5-25 Watts	211060CF	Pacific Data	DV-51AAT	5	+5/1	120@60	2.1mm x 5.5mm rt angle F **2**	No	Black	3.4 x 2.7 x 2.2	6'/6"/6'	1.7	UL/CSA	$12.95	$11.69	$10.55	$9.49
	116089CF	Atari	C070042	5	+5/1	115@60	7-pin DIN M	No	Black	3.4 x 2.7 x 2.3	6'/6'	1.6	UL	8.39	7.55	6.05	4.55
	174844CF	Jameco	DCR2410F12	24	+24/1	120@60	2.1mm x 5.5mm F **2**	No	Black	4.4 x 3.0 x 2.5	6'/6'	2.6	—	16.95	15.29	13.75	12.39
	174852CF	Jameco	DCR2410F52	24	+24/1	120@60	2.5mm x 5.5mm F **2**	No	Black	4.4 x 3.0 x 2.5	6'/6'	2.7	— $19.95	14.95	12.95	10.95	9.95
	173665CF	Skynet	DND-3005	15	+30/0.5	120-127@60	2.5mm x 5.5mm F **2**	No	Black	3.0 x 2.5 x 2.2	5'/9"/3'/2"	1.4	UL/CUL	13.29	11.99	9.59	7.24
	103173CF	Jameco	JE9100	9	+5/0.6, ±12/0.25	120@50-60	5-pin DIN M	No	Black	4.8 x 3.1 x 2.5	6'/6'	2.3	UL/CSA $22.95	20.95	18.89	16.99	14.95
3-Wire AC Input – Regulated Linear																	
3-15 Watts	163969CF	Gatron	AH633N	3.75	+5/0.75	120@60	4-pin mini DIN M	No	Black	4.1 x 2.5 x 2.0	6'/5'9"	1.5	UL/CSA $2.95	$1.09	$.98	$.89	$.81
	203596CF	Elpac	WM150	15	+5/3	120@60	5-pin DIN M	No	Black	5.4 x 3.9 x 2.6	6'/6'	3.5	UL/CSA $19.95	12.35	11.25	10.19	9.19
	153752CF	Skynet	LVT-T022	8	+5/1.5, -5/0.1	115/230@50-60	5-pin mini DIN M	No	Black	5.5 x 2.9 x 1.5	6'/[2]	1.1	UL/CSA/TUV	12.95	11.69	9.35	6.99
	107326CF	Keltron	MPC2562	15.2	+5/2, +26/0.2	115@60	3-pin Molex F	No	Black	7.0 x 4.9 x 2.5	6'/3'5"	3.1	UL $6.95	3.15	2.85	2.59	2.35
	155651CF	Globtek	TR2V100MD8	12.2	+5/1, ±12/0.3	120@60	8-pin mini DIN M	No	Black	4.5 x 3.0 x 2.5	6'/6'	2.6	UL $10.95	9.69	8.69	7.79	6.99
	154624CF	Motorola	5712-305-4C3E †	5.6	+5/0.5, ±12/0.13	120@60	8-pin mini DIN M	No	Black	2.9 x 2.6 x 1.9	6'/[2]	1.2	UL/CSA	12.95	10.39	7.79	5.45

† Wall-Mount * See accessory table-top power cord chart below when AC cord needed; refer to [1], [2] or [3] in Cord (DC/AC) column above for correct power cord ▲ Manufacturer and Product Number may vary

AC-to-DC Unregulated Table-Top Power Supplies

SALE

Power	Part Number	Mfr. ▲	Mfr. Cross Ref. No. ▲	Output Power (W)	Output Volts (VDC)/ Current (A)	Input VAC@Hz	Output Plug/Connector ID x OD/Plug Type/Polarity F = female; M = male	Pwr. Ind.	Color	Size (L" x W" x H")	Length Cords (DC/AC)	Wt. (lbs.)	Agency Approvals	Pricing 1	10	50	100
2-Wire AC Input – Unregulated																	
10-30 Watts	190051CF	APS	APS48EA114	10	+7/1.5	120@60	2.5mm x 5.5mm female **2**	No	Black	3.4 x 2.3 x 1.9	6'/6'	1.9	UL/CUL	$9.95	$8.99	$7.19	$5.39
	203182CF	Brother	A71222D	25	+11.5/2.2	120@60	2.1mm x 5.5mm female **1**	No	Black	4.1 x 2.8 x 2.2	6'/6'	2.0	UL/CSA	12.95	11.49	10.49	9.49
	136565CF	Jameco	DDC1210P	12	+12/1.0	120@60	Stripped & Tinned	No	Black	3.2 x 2.2 x 1.9	6'/6'	1.2	—	13.95	12.59	11.39	10.19
	140880CF	Jameco	DC1215ST	18	+12/1.5	120@60	Stripped & Tinned	No	Black	3.1 x 2.1 x 1.9	6'/6'	1.5	UL	10.95	9.95	8.95	7.95
	143714CF	—	DC1220F1	24	+12/2.0	120@60	2.1mm x 5.5mm female **2**	No	Black	3.8 x 2.8 x 2.3	6'/6'	2.2	—	14.95	13.49	12.19	10.99
	143722CF	Jameco	DC1220F5	24	+12/2.0	120@60	2.5mm x 5.5mm female **2**	No	Black	3.8 x 2.8 x 2.3	6'/6'	2.2	—	12.95	11.69	10.55	9.49
	143731CF	—	DC1220M3	24	+12/2.0	120@60	3.5mm M **2**	No	Black	3.8 x 2.8 x 2.3	6'/6'	1.9	—	12.95	11.49	10.49	9.49
	220919CF	Jameco	EFU135170	23	+13.5/1.7	120@60	2.1mm x 5.5mm F **1**	No	Black	3.4 x 2.7 x 2.1	6'/6'	1.8	UL/CUL	17.49	16.35	14.39	13.69
	191898CF	Brother	A81807DM+	12.6	+18/0.7	127@60	2.1mm x 5.5mm female **1**	No	Black	4.2 x 3.1 x 2.5	6'/6'	2.6	— $7.95	3.85	3.49	3.09	2.79
	196947CF	Logitech	SCP60-201500	30	+20/1.5	120@60	2.1mm x 5.5mm female **2**	No	Black	3.8 x 2.8 x 2.3	6'/6'	1.2	UL/CUL $14.95	8.69	7.79	6.99	6.29
	139096CF	Jameco	DC2412F1	29	+24/1.2	120@60	2.1mm x 5.5mm female **2**	No	Black	4.4 x 3.1 x 2.6	6'/6'	2.5	— $19.95	14.95	13.49	12.15	10.95
	205920CF	Skynet	DND-3012	30	+30/1.0	120-127@50-60	2.5mm x 5.5mm female **2**	No	Black	4.0 x 2.9 x 2.5	6'/6'	1.7	UL/CUL	12.95	11.49	10.49	9.49
3-Wire AC Input – Unregulated																	
15-25W	157956CF	Everglow	PS571812D	18	+12/1.5	120@60	2.5mm x 5.5mm female **2**	No	Black	3.4 x 2.7 x 2.2	6'/6'	2.0	UL	$10.95	$9.95	$8.95	$7.95
	196306CF	—	A51813D	23	+18/1.3	120@60	2.5mm x 5.5mm female **2**	No	Black	3.6 x 2.4 x 2.0	6'/6'	1.8	UL/CSA	12.95	11.69	9.34	7.04

▲ Manufacturer may vary


38041CF


38050CF

** Accessory Power Input Cords


189587CF

Part No.	Ref. No.**	Description	Color	AWG	Certification	Cord Length	Wt. (lbs.)	Cord Type	1	10	100	250
38041CF	1	3-conductor power cord	Beige	18/3	UL/CSA	6'	0.4	SVT	$3.49	$3.15	$2.79	$2.49
38050CF	2	3-conductor power cord	Black	18/3	UL/CSA	6'	0.4	SVT	3.75	3.25	2.75	2.49
189587CF	3	2-conductor power cord	Black	18/2	UL/CSA	6'	0.3	SPT	2.95	2.49	2.15	1.79

GlobTek® AC-to-DC Medical Table-Top Switching Power Supplies

- Input voltage: 90-264VAC @ 47-63Hz
- 3-wire AC input
- Leakage current: 0.1mA maximum
- Isolation voltage: 4,000VAC
- Regulation (line & load): ±5%
- Ripple and noise: 1% or 100mV, whichever is smaller
- 2.5mm x 5.5mm female center positive
- Cord length (DC/AC): 6' / use P/N 38050CF
- Size: 2.9"L x 2.0"W x 1.6"H
- UL/CUL/TUV/CE approved for medical applications



Part Number	Product Number	Power (W)	Output Volts (VDC)/Current (A)	Pricing 1	10	50	100
230658CF	TR9CA2600CP	13.0	+5/2.6	$32.95	$29.65	$26.69	$23.99
230682CF	TR9CE1250CP	15.6	+12/1.3	32.95	29.65	26.69	23.99
230691CF	TR9CG1200CP	18.0	+15/1.2	32.95	29.65	26.69	23.99
230711CF	TR9CI750CP	16.8	+24/0.7	32.95	29.65	26.69	23.99
230738CF	TR9CA6000LCP	30.0	+5/6.0	52.95	47.65	42.89	38.59
230762CF	TR9CE4000LCP	49.2	+12/4.0	52.95	47.65	42.89	38.59
230771CF	TR9CG3333LCP	49.5	+15/3.3	52.95	47.65	42.89	38.59
230797CF	TR9CI2100LCP	50.4	+24/2.1	52.95	47.65	42.89	38.59

GlobTek® AC-to-DC Medical Regulated Switching Wall Adapters

- Input voltage: 100/240VAC @ 47-63Hz
- 3-prong input plug
- Leakage current: 0.1mA maximum
- Isolation voltage: 4,000VAC
- Regulation (line & load): ±5%
- Ripple and noise: 1% or 100mV whichever is smaller
- 2.5mm x 5.5mm female center positive
- Output cord length: 6'
- Size: 2.9"H x 1.9"W x 1.6"D
- Agency approval: UL/CUL/TUV/CE approved for medical applications



Part Number	Product Number	Power (W)	Output Volts (VDC)/Current (A)	Pricing 1	10	50	100
230818CF	WR92A2600LCP	13.0	+5@2.6	$32.95	$29.65	$26.69	$23.99
230842CF	WR92E1250LCP	15.6	+12@1.3	32.95	29.65	26.69	23.99
230851CF	WR92G1200LCP	18.0	+15@1.2	32.95	29.65	26.69	23.99
230877CF	WR92I750LCP	16.8	+24@0.75	32.95	29.65	26.69	23.99

For Open-Frame Medical Power Supplies see pages 32 - 33.

AC-to-DC Regulated Wall Adapters

Interchangeable Plug Wall Adapters

- Field changeable AC Plugs (sold separately, see below)
- Power-On LED
- Input voltage: 90-264VAC@47-63Hz
- Output connector: 2.1mm x 5.5mm female center positive
- Regulated output
- Double Insulated
- Class B EMI





4 to 5-Watt Wall Adapters

- Applications: PDAs, digital cameras, MPEG players, personal electronics
- Dimensions: 2.8"L x 1.8"W x 1.2"H
- Efficiency: 60% min.
- Weight: 0.3 lbs.

Part No.	Manufacturer	Product No.	Power (W)	Output Voltage (VDC)	Current (A)	Ripple (mVp-p)	Line Regulation	Load Regulation	1	5	25	100
228734CF	Phihong	PSA05R-033	4.0	3.3	1.2	50	±1%	±5%	$16.95	$15.25	$13.75	$12.35
228742CF	Phihong	PSA05R-050	5.0	5.0	1.0	50	±1%	±5%	16.95	15.25	13.75	12.35
228751CF	Phihong	PSA05R-090	5.0	9.0	0.56	90	±1%	±5%	16.95	15.25	13.75	12.35
228769CF	Phihong	PSA05R-120	5.0	12.0	0.42	120	±1%	±5%	16.95	15.25	13.75	12.35

6.6 to 11-Watt Wall Adapters

- Applications: wireless communications, portable equipment, digital camera, peripherals, networking
- Dimensions: 3.4"L x 2.1"W x 1.4"H
- Efficiency: 65% typical
- Weight: 0.3 lbs.

Part No.	Manufacturer	Product No.	Power (W)	Output Voltage (VDC)	Current (A)	Ripple (mVp-p)	Line Regulation	Load Regulation	1	5	25	100
228785CF	Phihong	PSA11R-033	6.6	3.3	2.0	50	±1%	±5%	$17.95	$16.15	$14.55	$13.09
228793CF	Phihong	PSA11R-050	10.0	5.0	2.0	50	±1%	±5%	17.95	16.15	14.55	13.09
228806CF	Phihong	PSA11R-090	10.0	9.0	1.1	90	±1%	±5%	17.95	16.15	14.55	13.09
228814CF	Phihong	PSA11R-120	10.0	12.0	0.83	120	±1%	±5%	17.95	16.15	14.55	13.09
228822CF	Phihong	PSA11R-150	10.0	15.0	0.67	150	±1%	±5%	17.95	16.15	14.55	13.09
228777CF	Phihong	PSA11R-240	10.0	24.0	0.42	240	±1%	±5%	17.95	16.15	14.55	13.09

15 to 20-Watt Wall Adapters with LoadSense™

- Senses and controls the voltage out the connector, eliminating the effect of a voltage drop in the cable
- Applications: peripherals, portable equipment, gaming machines, point-of-sale equipment, network equipment
- Dimensions: 3.9"L x 2.5"W x 1.4"H
- Efficiency: 70% Typical
- Weight: 0.6 lbs.

Part No.	Manufacturer	Product No.	Power (W)	Output Voltage (VDC)	Current (A)	Ripple (mVp-p)	Line Regulation	Load Regulation	1	5	25	100
228831CF	Phihong	PSA21R-050	15.0	5.0	3.0	50	±1%	±2%	$27.95	$25.15	$22.65	$20.39
228849CF	Phihong	PSA21R-120	20.0	12.0	1.67	120	±1%	±2%	27.95	25.15	22.65	20.39
228857CF	Phihong	PSA21R-150	20.0	15.0	1.33	150	±1%	±2%	27.95	25.15	22.65	20.39
229745CF	Phihong	PSA21R-180	20.0	18.0	1.11	180	±1%	±2%	27.95	25.15	22.65	20.39
228873CF	Phihong	PSA21R-240	20.0	24.0	0.83	240	±1%	±2%	27.95	25.15	22.65	20.39

AC Plugs and Plug Kits (sold separately)

Part No.	Manufacturer	Product No.	Description	1	10	50	100
229155CF	Phihong	RPA	USA Plug	$.53	$.51	$.50	$.49
229163CF	Phihong	RPE	European Plug	.61	.59	.58	.57
229171CF	Phihong	RPK	UK Plug	.99	.97	.94	.91
229180CF	Phihong	RPKIT	Kit w/ RPA/RPE/RPK/RPS (AUST)	2.65	2.39	2.32	2.25



AC-to-DC Regulated Wall Adapters

We specialize in Wall Adapters – Call for additional OEM PRICING.

We will change any power plug (pg 59) on any DC wall adapter listed (100 pc. minimum).


164101CF


171301CF


216442CF


174879CF

Polarity 1 ⊕—C—⊖ (center negative) Female Male Polarity 2 ⊖—C—⊕ (center positive)

2-Wire AC Input – Regulated

Part Number	Manufacturer	Product Number	Output Rating Voltage (VDC)	Output Rating Current (mA)	Output Plug ID x OD Plug Type / Polarity F = female; M = male	Input VAC @ Hz	Size (+0%-20%) H" x W" x D"	Case Color	Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing 1	10	50	100
164101CF	Jameco	DCR505F12	5	500	2.1mm x 5.5mm F **2**	120@60	2.8 x 2.0 x 1.6	Black	6'	0.6	UL/CSA	$8.95	$8.09	$7.25	$6.55
220935CF	Jameco	DDU050060	5	600	2.1mm x 5.5mm F **1**	120@60	2.7 x 2.2 x 1.9	Black	6'	0.8	UL/CUL	13.25	12.35	10.58	10.35
230543CF	Phihong	PSA05A-050	5	1000	2.1mm x 5.5mm F **2**	90-264@47-63	2.4 x 1.8 x 1.0	Black	6'	0.4	UL/CUL	16.39	14.75	13.29	13.29
171301CF	Imitation	JOD48U08	5	1000	2.1mm x 5.5mm F **2**	120@60	3.1 x 2.9 x 2.0	Black	6'	1.0	UL/CUL	10.95	9.89	8.89	7.99
196411CF	Jameco	DCR510F12V	5	1000	2.1mm x 5.5mm F **2**	120@60	3.3 x 2.2 x 1.9	Ivory	6'	1.0	UL/CUL	10.95	8.79	6.59	4.65
225995CF	Delta Electronics	ADP-5DB	5	1000	2.5mm x 5.5mm F **2**	100-120@50-60	2.5 x 1.8 x 1.1	Black	6'	0.2	UL	10.95	9.89	8.89	7.99
168604CF	ITE Power Supply	RWP480505	5	1000	2.5mm x 5.5mm F **2**	120@60	3.3 x 2.2 x 1.9	Black	6'	1.2	UL/CSA	10.95	9.89	8.89	7.99
216442CF	AK II Power Supply	AO5C1-05MP	5	1600	2.5mm x 5.5mm F **2**	100-240@50-60	2.2 x 1.8 x 1.1	Black	6'	0.4	UL/CUL/CE	12.95	11.65	10.49	9.49
228881CF	Phihong	PSC10A-050	5	2000	2.1mm x 5.5mm F **2**	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	12.95	11.65	10.49	9.45
228726CF	ORB	777-052000S-UF	5	2000	2.1mm x 5.5mm F **2**	100@50-60	3.1 x 2.1 x 1.5	Black	5'	0.5	UL/CUL	12.95	10.35	7.79	5.49
189190CF	Interex	EPA101MU-05B	5	2000	2.5mm x 5.5mm F **1**	100-240@50-60	3.2 x 2.8 x 1.3	Black	6'	0.4	UL/CUL	12.95	10.25	7.75	5.45
210892CF	Interex	EPA101MU	5	2000	2.5mm x 5.5mm F **2**	100-240@50-60	3.2 x 2.4 x 1.3	Black	6'	0.4	UL/CUL	12.95	11.69	9.35	6.99
228937CF	Phihong	PSC15A-050	5	3000	2.1mm x 5.5mm F **2**	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	13.95	12.55	11.29	10.19
190511CF	Salom Electric	SADB-0885	6	200	2.1mm x 5.5mm F **2**	115@60	2.6 x 1.8 x 1.5	Black	6'	0.4	UL/CUL	5.95	5.39	4.35	3.25
190529CF	NOMA	AD9123	9	250	2.5mm x 5.5mm right angle F **2**	120@60	2.5 x 2.0 x 1.6	Black	12'	0.5	UL/CSA	5.69	5.15	4.55	3.95
228890CF	Phihong	PSC10A-090	9	1100	2.1mm x 5.5mm F **2**	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	12.95	11.65	10.49	9.45
228945CF	Phihong	PSC15A-090	9	1600	2.1mm x 5.5mm F **2**	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	13.95	12.55	11.29	10.19
161550CF	Mean Well	WA15090R	9	1670	2.1mm x 5.5mm F **2**	100-120@60	2.9 x 2.0 x 1.6	Black	6'	0.4	UL/CUL	13.95	12.59	11.35	10.19
227782CF	Mean Well	KWM020-09B	9	1670	2.1mm x 5.5mm F **2**	90-264@47-63	1.6 x 2.0 x 2.9	Black	6'	0.4	UL/CSA	13.95	12.59	11.35	10.19
220898CF	Jameco	DCU120020	12	200	2.1mm x 5.5mm F **1**	120@60	2.5 x 2.0 x 1.7	Black	6'	0.5	UL/CUL	7.39	6.89	5.95	5.79
230551CF	Phihong	PSA05A-120	12	420	2.1mm x 5.5mm F **2**	90-264@47-63	2.4 x 1.8 x 1.0	Black	6'	0.4	UL/CUL	16.39	14.75	13.29	13.29
162996CF	Jameco	DCR1205F12	12	500	2.1mm x 5.5mm F **2**	120@60	3.2 x 2.2 x 1.9	Black	6'	0.9	—	8.95	8.09	7.25	6.55
229753CF	Phihong	PSC10A-120	12	830	2.1mm x 5.5mm F **2**	90-132@ 57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	12.95	11.65	10.49	9.45
170245CF	Jameco	DCR1210F12	12	1000	2.1mm x 5.5mm F **2**	120@60	3.2 x 2.3 x 2.0	Black	6'	1.2	—	13.95	12.59	11.35	10.19
228953CF	Phihong	PSC15A-120	12	1250	2.1mm x 5.5mm F **2**	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	13.95	12.55	11.29	10.19
220687CF	Mean Well	L15D12B-P1J	12	1250	2.1mm x 5.5mm F **2**	90-264@50-60	3.1 x 2.2 x 1.2	Black	6'	0.4	UL/CSA/TUV	12.29	11.09	9.95	8.95
183433CF	Mean Well	WA15-120	12	1250	2.5mm x 5.5mm F **2**	100-120@60	3.0 x 1.6 x 2.5	Black	6'	0.4	UL/CUL	14.95	13.49	12.15	10.95
210809CF	Marconi	SC102TA1200-B02	12	1500	2.1mm x 5.5mm F **2**	100-240@47-63	2.9 x 2.0 x 2.6	Black	10'6"	0.6	UL/CUL	14.95	11.99	8.99	6.29
228911CF	Phihong	PSC10A-150	15	670	2.1mm x 5.5mm F **2**	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	12.95	11.65	10.49	9.45
224590CF	Mean Well	LI5D15B-P1J	15	1000	2.1mm x 5.5mm F **2**	90-240@50-60	3.2 x 2.2 x 1.3	Black	6'	0.5	UL/CSA	12.29	11.09	9.95	8.95
228961CF	Phihong	PSC15A-150	15	1000	2.1mm x 5.5mm F **2**	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	13.95	12.55	11.29	10.19
168487CF	Mean Well	KWM020188	18	1000	2.1mm x 5.5mm F **2**	100-240@50-60	2.9 x 1.9 x 1.6	Black	6'	0.4	UL/CUL	17.95	16.19	14.55	13.09
203158CF	Regal Electronics	RJK-24251-N	24	250	2.1mm x 5.5mm F **2**	120@60	3.2 x 2.2 x 1.9	Black	6'	1.3	—	6.95	6.25	5.59	4.95
228929CF	Phihong	PSA10A-240	24	420	2.1mm x 5.5mm F **2**	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	12.95	11.65	10.49	9.45
174861CF	Jameco	DCR2405F12	24	500	2.1mm x 5.5mm F **2**	120@60	3.4 x 2.7 x 2.2	Black	6'	1.3	—	11.95	10.79	9.69	8.75
174879CF	Jameco	DCR2405F52	24	500	2.5mm x 5.5mm F **2**	120@60	3.4 x 2.7 x 2.2	Black	6'	1.3	—	11.95	10.79	9.69	8.75
228970CF	Phihong	PSA15A-240	24	620	2.1mm x 5.5mm F **2**	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	13.95	12.55	11.29	10.19

AC-to-DC Unregulated Wall Adapters

We will change any power plug (pg 59) on any DC wall adapter listed (100 pc. minimum).

Input: 120VAC @ 60Hz

Polarity 1 ⊕—C—⊖ (center negative) Female Polarity 2 ⊖—C—⊕ (center positive)

2-Wire AC Input – Unregulated

Part Number	Manufacturer	Product Number	Output Rating Voltage (VDC)	Output Rating Current (mA)	Output Plug ID x OD Plug Type / Polarity F = female; M = male	Size (+0%-20%) H" x W" x D"	Case Color	Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing 1	10	50	100
112070CF	Jameco	DC502F5	5	225	2.5mm x 5.5mm F **2**	1.9 x 2.2 x 2.0	Black	7'	0.3	UL/CSA	$7.29	$6.59	$5.95	$5.35
155601CF	Jameco	DC510F1	5	1000	2.1mm x 5.5mm F **2**	2.6 x 2.0 x 1.7	Black	6'	0.7	UL/CSA	~~$5.39~~ 4.95	4.29	3.85	3.55
219651CF	—	FE4823-050E120	5	1200	2.5mm x 5.5mm F **2**	3.5 x 2.4 x 1.9	Black	6'	1.2	UL/CUL	~~$5.95~~ 5.29	4.79	4.29	3.89
119255CF	Jameco	DC605F11	6	500	2.1mm x 5.5mm F **1**	2.3 x 1.8 x 1.8	Black	6'	0.6	UL/CUL	3.95	3.59	3.25	2.89
101266CF	Jameco	DC605F12	6	500	2.1mm x 5.5mm F **2**	2.4 x 1.9 x 1.6	Black	6'	0.4	UL/CSA	~~$4.95~~ 3.95	3.59	3.25	2.89

AC-to-DC Wall Adapters continued on page 55 - 57

We specialize in Wall Adapters – Call for additional OEM PRICING.


169519CF


100853CF

We will change any power plug (pg 59)
on any DC wall apater listed (100 pc. minimum).


100175CF


127976CF

Polarity 1 (center negative) Female Male Polarity 2 (center positive)

- Input: 120VAC @ 60Hz

2-Wire AC Input – Unregulated

Part Number	Manufacturer	Product Number	Output Rating Voltage (VDC)	Output Rating Current (mA)	Output Plug ID x OD Plug Type / Polarity F = female; M = male	Size (+0%-20%) H" x W" x D"	Case Color	Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing 1	10	50	100
15544CF	Jameco	DC605M3	6	500	3.5mm M **2**	2.4 x 1.9 x 1.6	Black	6'	0.4	UL/CSA	$3.95	$3.59	$3.25	$2.89
201451CF	APX Technologies	AP4733	6	700	2.1mm x 5.5mm F **2**	2.6 x 1.9 x 1.4	Black	6'	0.5	UL/CUL	4.95	3.95	2.95	2.19
147707CF	Jameco	DC608F1	6	800	2.1mm x 5.5mm F **2**	2.3 x 2.0 x 1.6	Black	6'	0.6	UL/CSA	~~$5.95~~ 4.95	4.49	4.05	3.65
220943CF	Jameco	DCU060120	6	1200	2.1mm x 5.5mm F **1**	2.5 x 2.0 x 1.7	Black	6'	0.7	UL/CUL	7.85	7.25	6.59	6.25
227951CF	—	JOD-48U-33	6	2100	2.1mm x 5.5mm F **2**	3.3 x 2.2 x 1.9	Black	6'	1.3	UL/CUL	7.95	7.15	6.45	5.79
220951CF	Jameco	DCU075100	7.5	1000	2.1mm x 5.5mm F **1**	2.5 x 2.0 x 1.7	Black	6'	0.6	UL/CUL	9.19	8.59	7.55	7.19
196761CF	Voltek	8233	7.5	1100	2.1mm x 5.5mm F **2**	2.1 x 1.9 x 1.0	Black	6'	0.2	UL/CSA	6.49	5.19	3.89	2.75
230623CF	—	MKD-48752100	7.5	2100	2.1mm x 5.5mm F **2**	3.3 x 2.2 x 1.9	Black	6'	1.3	UL/CUL	7.95	7.15	6.45	5.79
127511CF	Jameco	DC810F1	8	1000	2.1mm x 5.5mm F **2**	3.1 x 2.5 x 2.1	Black	6'	1.3	UL	7.95	7.19	6.45	5.85
134025CF	Jameco	DC902F11	9	200	2.1mm x 5.5mm F **1**	2.1 x 1.7 x 1.6	Black	6'	0.4	UL/CSA	4.95	4.49	3.95	3.59
100845CF	Jameco	DC902F12	9	200	2.1mm x 5.5mm F **2**	2.1 x 1.7 x 1.5	Black	6'	0.4	UL/CSA	3.95	3.59	2.89	2.15
100837CF	Jameco	DIA3590	9	200	3.5mm M **2**	2.6 x 1.8 x 1.6	Black	6'	0.4	UL/CSA	3.95	3.59	3.25	2.95
191767CF	—	CTPS350903002C0	9	300	1.3mm x 3.5mm right angle F **2**	2.3 x 1.8 x 1.5	Black	6'	0.4	UL/CSA	3.69	3.39	2.69	1.99
133891CF	—	DC903F1	9	300	2.1mm x 5.5mm F **2**	2.0 x 1.5 x 1.5	Black	6'	0.4	UL/CSA	3.95	3.59	2.85	2.15
189237CF	ACI World	35-9-300C	9	300	2.5mm x 5.5mm F **2**	2.2 x 1.7 x 1.4	Black	6'	0.4	UL/CSA	4.25	3.59	2.95	2.35
216469CF	Everglow	D350900300U	9	300	2.5mm x 5.5mm F **1**	2.4 x 1.7 x 1.7	Black	6'	0.4	UL/CUL	3.95	3.59	3.25	2.89
169519CF	Panasonic	KX-TCA1	9	350	2.1mm x 5.5mm right angle F **1**	2.7 x 1.7 x 1.6	Dk. Gray	6'	0.4	UL/CSA	4.49	4.05	3.25	2.45
202155CF	Jameco	DC9035F12	9	350	2.1mm x 5.5mm F **2**	3.2 x 2.4 x 2.0	Black	6'	0.3	UL/CUL	2.95	2.65	2.39	2.15
140636CF	Jameco	DC904F5	9	400	2.5mm x 5.5mm F **2**	2.6 x 2.0 x 2.0	Black	6'	0.6	UL/CSA	4.19	3.79	3.39	3.05
202171CF	Jameco	DC9045F12	9	450	2.1mm x 5.5mm F **2**	3.3 x 2.9 x 2.3	Black	6'	0.5	UL/CUL	3.95	3.59	3.25	2.89
163627CF	Jameco	DC905F11	9	500	2.1mm x 5.5mm F **1**	2.5 x 1.9 x 1.7	Black	6'	0.6	UL/CSA	5.49	4.95	4.45	3.95
170270CF	Panasonic	PQLV1	9	500	2.1mm x 5.5mm right angle F **1**	2.7 x 1.9 x 1.8	Gray	6'	0.6	UL/CSA	3.95	3.59	3.25	2.89
100853CF	Jameco	DC905F12	9	500	2.1mm x 5.5mm F **2**	2.5 x 1.9 x 1.7	Black	6'	0.6	UL/CSA	4.49	4.05	3.65	3.29
147731CF	Global Village	43-1125	9	500	2.1mm x 5.5mm F **2**	2.6 x 2.0 x 1.7	Beige	6'	0.6	UL/CSA	5.39	4.65	4.15	3.85
180540CF	Mitsubishi	FZ1729A	9	500	2.5mm x 5.5mm right angle F **2**	2.4 x 1.2 x 1.6	Black	6'	0.4	UL/CSA	4.49	4.05	3.65	3.29
15561CF	—	DC905M3	9	500	3.5mm M **2**	2.5 x 2.0 x 1.6	Black	6'	0.5	UL/CSA	~~$4.95~~ 4.69	3.76	3.28	3.15
202180CF	Jameco	DC906F12	9	600	2.1mm x 5.5mm F **2**	3.3 x 2.9 x 2.3	Black	6'	0.6	UL/CUL	~~$5.49~~ 4.49	4.05	3.65	3.29
100175CF	Jameco	DC906F5	9	600	2.5mm x 5.5mm F **2**	2.5 x 1.9 x 1.8	Black	6'	0.6	UL/CSA	5.49	4.75	4.25	3.95
202198CF	Jameco	DC908F12	9	800	2.1mm x 5.5mm F **2**	3.3 x 2.9 x 2.3	Black	6'	0.6	UL/CUL	6.95	6.29	5.25	3.69
164929CF	CUI Stack	48-9-900D	9	900	2.1mm x 5.5mm F **1**	2.7 x 2.3 x 1.8	Black	6'	0.9	UL/CUL	7.95	7.15	5.75	4.29
100888CF	Everglow	DDU090100	9	1000	2.1mm x 5.5mm F **2**	2.6 x 2.4 x 2.0	Black	6'	1.0	UL/CSA	7.95	7.19	6.45	5.79
227774CF	GTE	ADP2108GT	9	1000	2.1mm x 5.5mm right angle F **2**	2.5 x 2.2 x 1.9	Black	6'	0.9	UL/CUL	7.95	7.15	6.45	5.79
127503CF	Atari	DC910F5	9	1000	2.5mm x 5.5mm F **2**	2.6 x 2.4 x 2.0	Black	6'	0.9	UL/CSA	7.49	6.75	5.39	4.05
15587CF	Atari	PAG1200	9	1000	3.5mm M **2**	2.6 x 2.4 x 2.0	Black	6'	0.9	UL/CSA	7.95	7.19	5.75	4.29
130526CF	Jaguar	DC912F11	9	1200	2.1mm x 5.5mm F **1**	2.4 x 2.0 x 1.8	Black	6'	1.0	UL/CSA	8.95	8.09	7.29	6.59
143693CF	Jameco	DC915F1	9	1500	2.1mm x 5.5mm F **2**	3.3 x 2.5 x 2.3	Black	6'	1.3	UL/CSA	9.95	8.99	7.19	5.39
163993CF	Jameco	DC1202F11R	12	200	2.1mm x 5.5mm right angle F **1**	2.4 x 1.7 x 1.6	Black	6'	0.4	UL/CSA	4.25	3.85	3.45	3.09
100095CF	Jameco	DC1202F1	12	200	2.1mm x 5.5mm F **2**	2.1 x 1.8 x 1.5	Black	6'	0.4	UL/CSA	~~$4.69~~ 3.95	3.49	3.06	2.75
158043CF	Jameco	DC1202F12R	12	200	2.1mm x 5.5mm right angle F **2**	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CSA	3.95	3.55	3.19	2.89
220433CF	Jameco	DBU120020	12	200	2.5mm x 5.5mm right angle F **2**	2.2 x 1.7 x 1.5	Lt. Gray	6'	0.4	UL/CSA	3.89	3.49	3.15	2.85
185658CF	—	DV1220DCB	12	200	2.5mm x 5.5mm right angle F **2**	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CSA	4.25	3.89	3.09	2.35
211238CF	Quotrek	35D-12-250	12	250	2.5mm right angle M **2**	2.2 x 1.7 x 1.5	Black	6'	0.4	UI/CSA	3.95	3.55	3.19	2.89
219601CF	Jameco	DCU120025	12	250	Stripped & tinned	2.5 x 2.0 x 1.7	Dk. Gray	6'	0.4	UL/CUL	3.95	3.55	3.25	2.85
163491CF	—	AD1230	12	300	Connector end may vary	2.2 x 2.2 x 1.6	Black	6'	0.5	UL/CSA	4.29	3.89	3.49	3.09
201099CF	—	SPN4230A	12	300	1.3mm x 3.5mm right angle F **2**	2.3 x 2.0 x 1.7	Black	6'	0.5	UL/CSA	4.49	4.09	3.29	2.45
127976CF	Xircom	DC1203F12	12	300	2.1mm x 5.5mm F **2**	2.6 x 1.8 x 1.6	Black	6'	0.7	UL/CSA	4.75	4.25	3.79	3.49
190043CF	Xircom	41-2-15	12	300	2.5mm x 5.5mm right angle F **2**	2.9 x 2.0 x 1.6	Black	6'	0.5	UL/CSA	4.49	4.09	3.29	2.45
190502CF	Lucent Tech.	DV1140DC	12	400	2.1mm x 5.5mm right angle F **2**	2.6 x 2.1 x 1.9	Black	6'	0.5	UL/CUL	5.95	5.39	4.85	4.35
114825CF	Jameco	DC1205ST	12	500	Connector end may vary	2.5 x 2.0 x 1.7	Black	6'	0.6	CUL	4.75	4.35	3.45	2.59
15368CF	Jameco	DC1205F11	12	500	2.1mm x 5.5mm F **1**	2.5 x 1.9 x 1.6	Black	6'	0.6	UL/CSA	6.49	5.85	5.29	4.75

AC-to-DC Wall Adapters continued on page 54 - 57

AC-to-DC Unregulated Wall Adapters *(Continued)*

Color Code Legend: New | Sale | Qty Save | Closeout

We specialize in Wall Adapters – Call for additional OEM PRICING.


15392CF


213559CF

We will change any power plug (pg 59) on any DC wall adapter listed (100 pc. minimum).


101291CF


211051CF

Polarity 1 ⊕—○—⊖ (center negative)


Female


Male

Polarity 2 ⊖—○—⊕ (center positive)

SALE

- Input: 120VAC @ 60Hz

2-Wire AC Input – Unregulated

Part Number	Manufacturer	Product Number	Output Rating Voltage (VDC)	Output Rating Current (mA)	Output Plug ID x OD Plug Type / Polarity F = female; M = male	Size (+0%-20%) H" x W" x D"	Case Color	Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing 1	Pricing 10	Pricing 50	Pricing 100
102496CF	ITE Power Supply	DC1205F12	12	500	2.1mm x 5.5mm F **2**	2.5 x 1.9 x 1.6	Black	6'	0.6	UL/CSA	$4.95	$3.99	$2.99	$2.09
131300CF	Jameco	SCP41	12	500	2.1mm x 5.5mm right angle F **2**	2.6 x 1.9 x 1.7	Beige	6'	0.6	UL/CSA	4.95	4.49	4.05	3.65
200125CF	Noostuff Inc.	DV1250	12	500	2.5mm x 5.5mm F **1**	2.4 x 2.0 x 1.6	Black	6'	1.0	UL/CSA	4.95	4.49	3.59	2.69
102277CF	Jameco	DC1205F5	12	500	2.5mm x 5.5mm F **2**	2.5 x 2.1 x 1.7	Black	6'	0.6	UL/CSA	4.95	4.49	4.05	3.65
17267CF	Jameco	DC1205M3	12	500	3.5mm M **2**	2.5 x 1.9 x 1.6	Black	6'	0.6	UL/CSA	4.95	4.49	4.05	3.65
202201CF	Jameco	DC1206F12	12	600	2.1mm x 5.5mm F **2**	3.3 x 2.9 x 2.3	Black	6'	0.6	UL/CUL	4.69	4.25	3.85	3.45
202219CF	Jameco	DC120F12	12	700	2.1mm x 5.5mm F **2**	3.3 x 2.9 x 2.3	Black	6'	0.6	UL/CUL	5.79	4.65	3.49	2.45
117479CF	Jameco	DC1208F1	12	800	2.1mm x 5.5mm F **2**	3.0 x 2.3 x 2.0	Black	6'	0.9	UL/CSA	6.95	6.29	5.65	5.09
181711CF	Baknor	48D12800B	12	800	2.1mm x 5.5mm F **2 (240VAC input; UK Plug)**	3.2 x 2.2 x 2.2	Black	6'	1.1	CE/TUV	$6.95 3.95	3.55	3.19	2.89
129331CF	Jameco	48-12-800	12	800	2.5mm x 5.5mm F **2**	3.0 x 2.3 x 2.0	Black	6'	0.9	UL/CSA	5.49	4.95	4.45	4.05
211051CF	Calrad	DV-1280 Dual	12	800	2.5mm x 5.5mm rt angle F **2** w/ input switch	2.6 x 2.4 x 1.9	Black	6'	0.9	—	5.39	4.85	4.35	3.95
121232CF	Jameco	DC1208M3	12	800	3.5mm M **2**	2.6 x 2.4 x 2.0	Black	6'	0.9	UL/CSA	5.95	5.39	4.49	3.19
100870CF	Jameco	DC1210F1	12	1000	2.1mm x 5.5mm F **2**	3.1 x 2.4 x 2.0	Black	6'	0.9	UL/CSA	7.95	6.95	6.25	5.59
105478CF	Superworld	DC1210F5	12	1000	2.5mm x 5.5mm F **2**	3.1 x 2.4 x 2.0	Black	6'	1.0	UL/CSA	$9.95 6.95	6.25	5.59	4.95
199566CF	Superworld	WK1201A01DN	12	1000	2.5mm x 5.5mm F **2** (w/ RF filter)	3.2 x 2.2 x 2.0	Black	6'	1.2	UL/CSA	5.95	5.39	4.35	3.25
189579CF	Fellowes	BCU12100	12	1000	2.5mm x 5.5mm right angle F **2**	3.2 x 2.2 x 1.9	Black	6'	1.0	UL/CSA	7.95	7.19	5.75	4.35
15392CF	Jameco	DC1210M3	12	1000	3.5mm M **2**	3.3 x 2.4 x 2.0	Black	6'	1.0	UL/CSA	7.19	6.49	5.85	5.25
213559CF	—	GPC-081	12	1000	Auto lighter power outlet	4.3 x 2.2 x 1.9	Black	—	1.1	UL/CUL	14.95	13.49	12.19	10.95
196779CF	Jameco	D1212950	12	1200	2.5mm x 5.5mm F **2**	3.0 x 2.3 x 1.9	Black	6'	1.0	UL/CUL	7.79	6.95	6.29	5.69
235096CF	—	DSA-0151A-12S	12	1250	2.1mm x 5.5mm F **2**	3.2 x 2.1 x 1.4	Black	6'	0.3	UL/CUL	13.49	12.15	10.95	9.85
189325CF	KCS Industries	57D12-1500	12	1500	Stripped and tinned (w/ on-off switch)	3.4 x 2.6 x 2.2	Black	8'	1.5	UL	9.95	8.99	7.19	5.39
203035CF	Brother	A41215	12	1500	2.1mm x 5.5mm F **1**	3.6 x 2.5 x 1.9	Black	6'	1.5	UL/CSA	12.95	11.69	9.35	6.99
136881CF	Leader Electronics	DC1215F1	12	1500	2.1mm x 5.5mm F **2**	3.4 x 2.7 x 2.2	Black	6'	1.5	UL	12.95	11.69	10.55	9.45
101291CF	KCS Industries	DC1215F5	12	1500	2.5mm x 5.5mm F **2**	3.4 x 2.7 x 2.2	Black	6'	1.5	UL	$19.95 9.95	8.99	8.09	7.25
189211CF	ACI World	57-12-1500D	12	1500	8-pin mini DIN M	3.4 x 2.6 x 2.2	Black	3'4"	1.7	UL/CUL	4.95	4.49	3.59	2.69
192786CF	—	MK135100	13.5	1000	2.1mm x 5.5mm F **1**	2.9 x 2.3 x 2.0	Black	6'	1.0	UL	8.95	8.09	6.45	4.85
210817CF	ORA Electronics	MK135100-1	13.5	1000	2.1mm x 5.5mm F **2**	2.9 x 2.3 x 1.9	Black	6'	1.0	UL	9.95	8.99	7.19	5.39
212812CF	Jameco	DC1402F12	14	200	2.1mm x 5.5mm F **2**	2.2 x 1.7 x 1.5	Black	6'	0.8	UL/CUL	$4.49 3.95	3.59	3.25	2.89
212821CF	Jameco	DC1403F12	14	300	2.1mm x 5.5mm F **2**	2.2 x 1.7 x 1.5	Black	6'	0.8	UL/CUL	4.95	4.49	3.95	3.59
129314CF	—	DV-1250	14	360	2.5mm x 5.5mm right angle F **2**	2.3 x 2.0 x 1.6	Black	6'	0.6	UL/CSA	4.95	4.49	3.59	2.69
212839CF	Jameco	DC1405F12	14	500	2.1mm x 5.5mm F **2**	2.2 x 1.7 x 1.5	Black	6'	0.8	UL/CUL	4.95	4.49	4.05	3.65
123932CF	Jameco	DC1407F1	14	700	2.1mm x 5.5mm F **2**	2.6 x 2.4 x 2.0	Black	6'	1.0	UL/CSA	8.49	7.65	6.89	6.19
202243CF	Everglow	DC1407F52	14	700	2.5mm x 5.5mm F **2**	3.9 x 2.9 x 2.4	Black	6'	0.8	UL/CUL	7.25	6.55	5.89	5.29
202251CF	Jameco	DC14085F12	14	850	2.1mm x 5.5mm F **2**	3.9 x 2.9 x 2.4	Black	6'	0.8	UL/CUL	$7.49 5.39	4.85	4.35	3.95
202260CF	Jameco	DC1410F12	14	1000	2.1mm x 5.5mm F **2**	3.9 x 2.9 x 2.4	Black	6'	0.9	UL/CUL	7.95	6.95	6.25	5.59
190001CF	Jameco	DC1505F1	15	500	2.1mm x 5.5mm F **2**	2.3 x 2.4 x 1.9	Black	6'	0.8	UL/CSA	6.95	6.29	5.65	5.09
189982CF	Jameco	DC1505F5	15	500	2.5mm x 5.5mm F **2**	2.3 x 2.4 x 1.9	Black	6'	0.8	UL/CSA	6.95	6.29	5.05	3.79
155803CF	Jameco	DC1506F11	15	600	2.1mm x 5.5mm F **1**	2.9 x 2.3 x 1.9	Black	6'	1.0	UL/CSA	8.95	8.09	7.25	6.55
232258CF	Horizon	DDU150080	15	800	2.1mm x 5.5mm F **1**	2.9 x 2.3 x 1.9	Black	6'	1.0	UL	9.49	8.55	7.69	6.95
203502CF	Jameco	48150900	15	900	2.5mm x 5.5mm F **2**	2.6 x 2.2 x 1.9	Black	6'	1.0	UL/CSA	6.95	6.25	5.49	4.75
151992CF	Jameco	AD-SS-2	15	1000	2.1mm x 5.5mm F **1**	3.1 x 2.0 x 1.9	Beige	6'	1.5	UL/CSA	9.69	8.69	7.85	6.19
191652CF	Jameco	DC1510F12	15	1000	2.1mm x 5.5mm F **2**	3.3 x 2.2 x 1.9	Black	6'	1.0	UL/CSA	9.59	8.65	7.79	6.99
203511CF	LZR	AD1590	15	900	6-pin mini DIN M	2.6 x 2.3 x 1.9	Black	6'	1.0	UL/CSA	4.29	3.89	3.55	3.25
220901CF	Drake	3690454	16	250	Stripped & tinned	2.2 x 2.1 x 1.6	Black	6'	0.8	UL/CSA	5.95	5.35	4.85	4.35
162317CF	Jameco	DC1605F1	16	500	2.1mm x 5.5mm F **2**	2.2 x 2.4 x 1.9	Black	6'	0.8	UL/CSA	7.95	6.95	6.25	5.59

AC-to-DC Wall Adapters continued on page 54 - 57

For Medical and Interchangeable Plug Wall Adapters see page 53

AC-to-DC Unregulated Wall Adapters

We specialize in Wall Adapters – Call for additional OEM PRICING.

We will change any power plug (pg 59) on any DC wall adapter listed (100 pc. minimum).


217541CF


163643CF


117321CF


123158CF

Polarity 1 ⊕—C—⊖ (center negative) Female Male Polarity 2 ⊖—C—⊕ (center positive)

- Input: 120VAC @ 60Hz

2-Wire AC Input – Unregulated

Part Number	Manufacturer	Product Number	Output Rating Voltage (VDC)	Output Rating Current (mA)	Output Plug ID x OD Plug Type / Polarity F = female; M = male	Size (+0%-20%) H" x W" x D"	Case Color	Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing 1	10	50	100
217541CF	NiteRider	FE4116168C030	16.8	300	2.5mm x 5.5mm F **2** w/ LED indicator	3.1 x 2.1 x 1.6	Black	6'	0.6	UL/CUL	**$5.95**	**$5.35**	**$4.85**	**$4.35**
181729CF	Jameco	CXV18250	18	250	2.1mm x 5.5mm F **2**	2.6 x 2.0 x 1.6	Black	6'	0.6	UL	**6.95**	**6.29**	**5.65**	**5.09**
217568CF	NiteRider	FE4126180P040	18	400	2.5mm x 2.5mm F **2** w/ LED indicator	3.5 x 2.1 x 1.6	Black	6'	0.8	UL/CUL	**6.95**	**5.59**	**4.19**	**2.95**
163272CF	Jameco	48-18-500D	18	500	2.1mm x 5.5mm F **2**	2.6 x 2.3 x 1.9	Black	6'	0.8	UL/CUL	**9.95**	**8.99**	**8.09**	**7.25**
206957CF	Globtek	WD1H1000LCX	18	1000	2.5mm x 5.5mm F **2**	3.4 x 2.6 x 2.1	Black	6'	1.4	—	**9.95**	**8.99**	**7.19**	**5.39**
102285CF	Jameco	DC2404F1	24	400	2.1mm x 5.5mm F **2**	3.0 x 2.3 x 2.0	Black	6'	0.9	UL/CUL	**7.95**	**7.19**	**6.45**	**5.85**
163635CF	Jameco	DC2405F11	24	500	2.1mm x 5.5mm F **1**	3.1 x 2.3 x 1.9	Black	6'	1.0	UL/CUL	**8.95**	**8.09**	**7.25**	**6.55**
191556CF	Jameco	DC2405F5	24	500	2.5mm x 5.5mm F **2**	3.1 x 2.3 x 1.9	Black	6'	1.0	UL/CUL	**8.95**	**8.09**	**7.29**	**6.55**
139088CF	Jameco	DC2405M3	24	500	3.5mm M **2**	3.1 x 2.3 x 1.9	Black	6'	1.0	UL/CUL	**7.95**	**7.19**	**5.75**	**4.29**
196322CF	3Com	P48240600A020G	24	600	2.1mm x 5.5mm F **2**	3.3 x 2.3 x 1.9	Black	6'	1.1	UL/CSA	**8.95**	**8.09**	**7.29**	**6.55**
168495CF	Jameco	DC2408F1	24	800	2.1mm x 5.5mm F **2**	2.9 x 1.9 x 1.6	Black	6'	0.4	UL/CUL/TUV	**10.95**	**9.89**	**8.89**	**7.99**
220960CF	Jameco	DFU240100	24	1000	2.1mm x 5.5mm F **1**	3.4 x 2.7 x 2.2	Black	6'	1.6	UL/CUL	**13.89**	**12.95**	**11.39**	**10.89**
163651CF	Jameco	DC2412F11	24	1200	2.1mm x 5.5mm F **1**	3.8 x 3.0 x 2.6	Black	6'	2.0	—	**14.95**	**13.49**	**12.15**	**10.95**
163643CF	Jameco	DC2412F12	24	1200	2.1mm x 5.5mm F **2**	3.8 x 3.0 x 2.6	Black	6'	2.0	—	**14.95**	**13.49**	**12.15**	**10.95**
117321CF	Jameco	DC2412F5	24	1200	2.5mm x 5.5mm F **2**	3.8 x 3.0 x 2.6	Black	6'	2.0	—	**14.95**	**13.49**	**12.15**	**10.95**
121241CF	Jameco	DC2412M3	24	1200	3.5mm M **2**	3.4 x 2.7 x 2.2	Black	6'	2.0	—	**12.95**	**11.49**	**9.95**	**8.95**
199523CF	Jameco	DDU300050	30	500	2.5mm x 5.5mm F **2**	2.9 x 2.3 x 1.9	Black	6'	1.1	UL/CUL	**9.95**	**8.95**	**7.95**	**6.95**
215095CF	—	MW48-4800250	48	250	2.5mm x 5.5mm F **2**	2.9 x 2.3 x 1.9	Black	6'	1.1	UL/CUL	**7.95**	**7.15**	**6.49**	**5.79**
230631CF	—	MW48-4800250-2.1	48	250	2.1mm x 5.5mm F **2**	3.3 x 2.7 x 2.2	Black	6'	1.1	UL/CUL	**8.95**	**8.09**	**7.25**	**6.55**
215108CF	—	MW48-4800500	48	500	2.5mm x 5.5mm F **2**	2.9 x 2.3 x 1.9	Black	6'	1.1	UL/CUL	**10.95**	**9.85**	**8.85**	**7.95**
230640CF	—	MW48-480500-2.1	48	500	2.1mm x 5.5mm F **2**	3.3 x 2.7 x 2.2	Black	6'	1.1	UI/CUL	**11.95**	**10.75**	**9.69**	**8.95**
15309CF	Mean Well	DCM05	3, 4.5, 6, 7.5, 9, 12	500	1.35 x 3.5, 2.1 x 5.0, 2.5 x 5.5 **female** 2.5, 3.5 **male**, 9V battery snap (LED ind.)	3.0 x 2.2 x 2.1	Black	6'	0.7	UL/CSA	**8.95**	**7.95**	**6.95**	**6.25**
190641CF	—	DCM08	3, 4.5, 6, 7.5, 9, 12	800	1.5 x 5.5, 2.1 x 5.0, 2.1 x 5.5, 2.5 x 5.5 **fem** 2.5, 3.5 **male**, polarity sw. (LED ind.)	3.9 x 2.7 x 2.3	Black	6'	0.9	UL/CSA	**7.95**	**7.19**	**5.75**	**4.29**
123158CF	ProAm	DCM10 †	1.5, 3, 4.5, 6, 7.5, 9, 12	1000	1.35 x 3.5, 2.1 x 5.0, 2.5 x 5.5 **female** 2.5, 3.5 **male**, 9V battery snap (LED ind.)	3.7 x 2.2 x 2.5	Black	6'	0.9	—	**9.95**	**8.95**	**7.95**	**6.95**

† 120 to 220VAC

AC-to-DC Wall Adapters continued on pages 54 - 56

Table-Top AC-to-AC Adapter


176604CF

AC-to-AC Table-Top Step-Down Adapters

SALE

- Input voltage: 120VAC @ 60Hz
- Attached AC cord

Part Number	Manufacturer	Product Number	Output Volts (VAC)	Output Current (A)	Output Watts (W)	Output Plug ID x OD Plug Type	Color	Size (+0%-20%) (L" x W" x H")	Cord (AC/AC)	Wt. (lbs.)	Agency Approvals	Pricing 1	10	50	100
176604CF	Jameco	TA661640	16	4.0	64	2.1mm x 5.5mm female	Black	3.7 x 2.9 x 2.5	6'/6'	2.8	CSA ~~$14.95~~	**$12.95**	**$11.49**	**$9.95**	**$8.95**
147310CF	Ault	0931RB	24	0.70	17	3-pin (0.156") female housing	Black	3.2 x 2.2 x 1.9	6'/6'	1.1	UL ~~$3.95~~	**1.35**	**1.25**	**1.15**	**1.05**
152135CF	Harmon/Kardon	100380-001	24	1.46	35	2.1mm x 5.5mm female	Black	3.6 x 2.7 x 2.1	3'5"/5'6"	1.9	UL/CSA ~~$6.95~~	**3.15**	**2.85**	**2.59**	**2.35**

AC-to-AC Wall Adapters continued on page 58

30-Day Money-Back Guarantee

If you're not completely satisfied, we'll take it back! Details on page 226.

AC-to-AC Wall Adapters

We specialize in Wall Adapters – Call for additional OEM PRICING.



101127CF



102234CF



Female



Male



Stripped



Screw Terminals



10081CF



10428CF

We will change any power plug (pg 59) on any wall adapter listed (100 pc. minimum).

- Input: 120VAC @ 60Hz

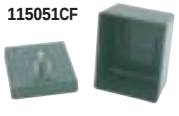
2-Wire AC Input

Part Number	Manufacturer	Product Number	Output Rating Voltage (VAC)	Output Rating Current (mA)	Output Plug ID x OD Plug Type F = female; M = male	Size (+0%-20%) H" x W" x D"	Case Color	Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing 1	10	50	100
101127CF	Siemens	DFX10096B	7	1500	2.5mm x 5.5mm F	1.9 x 2.2 x 2.0	Black	7'6"	0.8	UL/CSA	$4.95	$4.49	$3.95	$3.49
219660CF	Sincore	SLA40810	8	1000	2.1mm x 5.5mm F	2.2 x 2.1 x 1.6	Black	6'	0.7	UL/CSA	4.95	4.45	3.95	3.59
211078CF	DVE	DV-8135A	8.5	1350	2.5mm x 5.5mm F	2.2 x 2.0 x 1.7	Black	6'	0.9	UL/CSA	4.95	4.49	3.95	3.65
219619CF	Jameco	ABU09005	9	50	2.1mm x 5.5mm F	2.2 x 1.8 x 1.5	Black	6'	0.3	UL/CSA	3.29	2.95	2.65	2.39
210729CF	ITE Power Supply	MKA35090300	9	300	2.1mm x 5.5mm F	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CUL	3.95	3.55	2.95	2.49
184751CF	PhoneMate	M/N40	9	450	2.1mm x 5.5mm right angle F	2.8 x 2.0 x 1.7	Black	6'	0.8	UL/CSA	4.95	4.49	3.59	2.69
100061CF	Jameco	AC905F1	9	500	2.1mm x 5.5mm F	2.4 x 2.0 x 1.6	Black	6'	0.6	UL/CUL $4.95	4.59	3.95	3.45	3.25
226131CF	US Robotics	AA0950	9	500	2.5mm x 5.5mm F	2.5 x 2.1 x 1.7	Black	6'	0.5	UL/CSA	4.49	3.99	3.65	3.29
119204CF	Sakata INX	A41090800	9	800	2.1mm x 5.5mm F	2.6 x 1.9 x 1.7	Black	6'	0.6	UL $5.95	4.69	4.25	3.79	3.45
233293CF	Horizon	ACU090080	9	800	2.1mm x 5.5mm F	2.5 x 2.0 x 1.7	Black	6'	0.6	UL	4.69	4.25	3.79	3.45
236814CF	Jameco	ACU90080	9	800	3.5mm M	2.5 x 2.0 x 1.7	Black	6'	0.5	UL/CUL	4.95	4.49	4.05	3.65
102234CF	Everglow	AC910F1	9	1000	2.1mm x 5.5mm F	3.2 x 2.2 x 1.9	Black	6'	0.6	UL/CSA	4.95	4.49	4.05	3.65
157041CF	Jameco	41A9-1000	9	1000	2.5mm x 5.5mm F	2.1 x 2.1 x 1.6	Black	6'	0.6	UL/CSA	6.95	6.29	5.65	5.09
112336CF	Jameco	AC915F5	9	1500	2.5mm x 5.5mm F	2.5 x 2.2 x 2.0	Black	6'	0.9	UL	9.95	7.99	5.99	4.19
217550CF	Frino	FW6798	9	1900	Stripped and tinned	2.8 x 2.5 x 2.0	Black	6'8"	1.1	UL/CSA	8.95	8.09	7.25	6.55
210745CF	Leader Electronics	A4110050T	10	500	2.1mm x 5.5mm F	3.0 x 2.1 x 1.7	Black	6'	0.6	UL/CSA $4.95	4.49	4.05	3.65	3.29
101258CF	Jameco	41A12-500	12	500	2.1mm x 5.5mm F	2.8 x 2.0 x 1.6	Black	6'	0.6	UL/CSA $4.95	4.59	4.15	3.65	3.29
211271CF	Orig. Elec. Mfg.	AA-1250	12	500	2.5mm x 5.5mm F	2.3 x 2.1 x 1.6	Black	6'	0.6	UL/CSA	4.59	4.15	3.65	3.29
10081CF	Leader Electronics	AC1210F1	12	1000	2.1mm x 5.5mm F	2.6 x 2.4 x 2.0	Black	6'	0.7	UL/CSA	4.95	4.49	3.99	3.59
100167CF	Jameco	AC1210F5	12	1000	2.5mm x 5.5mm F	3.2 x 2.4 x 2.0	Black	6'	0.7	UL/CSA	4.95	4.49	4.05	3.65
10428CF	Jameco	AC1210M3	12	1000	3.5mm M	2.6 x 2.4 x 2.0	Black	6'	0.6	UL/CUL $5.95	4.95	4.49	4.05	3.65
167151CF	ITE Power Supply	HET57116	12	1500	2.1mm x 5.5mm F	3.4 x 2.7 x 2.2	Black	6'	1.5	—	4.95	4.49	3.59	2.69
206607CF	Ault	T48-121667-A030C	12	1600	2.5mm x 5.5mm F	2.5 x 2.2 x 2.0	Black	6'	0.9	UL/CUL	9.95	8.99	7.19	5.39
153761CF	Jameco	AC1216M3	12	1600	3.5mm male	2.5 x 2.2 x 1.9	Black	6'	0.9	UL	10.95	9.89	8.89	7.99
206404CF	MG Electronics	MGT1220	12	1670	Screw terminals	3.2 x 2.2 x 1.9	White	—	0.9	UL/CSA	6.95	6.29	5.65	5.09
210737CF	ITE Power Supply	PPI-1212UL	13	1200	2.1mm x 5.5mm F	3.3 x 2.4 x 2.0	Black	6'	0.9	UL/CUL	4.95	4.49	3.59	2.69
171408CF	—	AC1405F1	14	500	2.1mm x 5.5mm F	2.8 x 2.0 x 1.6	Black	6'	0.6	UL/CSA	4.95	4.49	3.95	3.49
171854CF	Racal	DV1485AC	14	850	2.5mm x 5.5mm right angle F	3.0 x 2.0 x 1.7	Black	6'	0.7	UL/CUL	6.95	6.29	5.04	3.79
201101CF	Motorola	SPN4340A	15	200	1.3mm x 3.5mm F	2.2 x 1.8 x 1.5	Black	6'	0.5	UL/CSA $3.49	1.69	1.55	1.39	1.29
100108CF	Jameco	AC1610F1	16	1000	2.1mm x 5.5mm F	2.5 x 2.2 x 1.9	Black	6'	0.9	UL/CSA	7.95	7.19	6.45	5.85
163053CF	Jameco	035-0165	16	1100	2.5mm x 5.5mm F	3.2 x 2.3 x 1.8	Black	6'	1.1	UL/CSA	8.95	7.99	7.25	6.55
206412CF	MG Electronics	MGT1620	16.5	1250	Screw terminals	3.2 x 2.2 x 1.9	White	—	0.9	UL/CSA $6.95	5.55	5.05	4.55	4.15
227791CF	Ault	T41180500A0206	18	500	2.1mm x 5.5mm F	2.6 x 1.9 x 1.7	Black	6'	1.1	CSA	7.95	7.15	6.45	5.79
121216CF	Jameco	AC1810F1	18	1000	2.1mm x 5.5mm F	3.1 x 2.7 x 1.9	Black	6'	1.1	UL/CUL	8.95	8.09	6.49	4.89
185439CF	Ault	T5182200-A020G	18	1850	2.1mm x 5.5mm right angle F	3.3 x 2.7 x 2.2	Black	6'	1.7	UL/CSA	7.95	7.19	6.49	5.85
206421CF	MG Electronics	MGT2410	24	420	Screw terminals	2.5 x 2.0 x 1.7	White	—	0.6	UL/CSA	8.49	7.65	6.89	6.19
87581CF	Jameco	AC2405F1	24	500	2.1mm x 5.5mm F	2.5 x 2.2 x 1.9	Black	6'	0.9	UL/CSA $5.95	4.95	4.49	3.99	3.65
206439CF	MG Electronics	MGT2420	24	830	Screw terminals	3.2 x 2.2 x 1.9	White	—	0.9	UL/CSA	7.19	6.49	5.85	5.25
140599CF	Jameco	AC2410F1	24	1000	2.1mm x 5.5mm F	3.0 x 2.2 x 1.9	Black	6'	1.2	UL/CSA	8.95	8.09	6.49	4.89
10102CF	Jameco	AC2410M3	24	1000	3.5mm male	3.0 x 2.2 x 1.9	Black	6'	1.2	UL/CSA	7.95	7.19	6.45	5.85
176356CF	Jameco	WP573024	24	1250	2.1mm x 5.5mm F	3.4 x 2.7 x 2.2	Black	5'8"	1.6	UL/CSA	10.49	9.45	8.55	7.65

AC-to-DC Wall Adapters continued on pages 54-57

Wall Adapter Enclosures

- Enclosures include 3-prong power plug & cable strain relief
- Size: 3.4"H x 2.7"W x 2.3"D
- Material: noryl
- Color: black



115051CF

Part No.	Style	1	10	100
115051CF	Non-vented	$2.25	$1.95	$1.69
115043CF	Vented	2.25	1.95	1.69



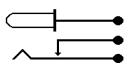
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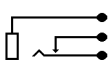
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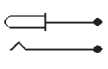
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Male & Female Power Jacks

- Use with mating power plugs, below
- Dimensions do not include barrel


Circuit 1


Circuit 2


Circuit 3



Type 1


Type 2


Type 3


Type 4


Type 5

Mounting	Code
Panel	C
PCB	D
Panel & PCB	E
Cable	F

Terminals	Code
Solder eyelet	A
PC board	B


Type 6


Type 7


Type 8


Type 9


Type 10

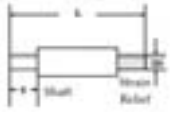
SALE

✳ Prepackaged: order in increments of 10, 100 or 1000

Part Number	Mfr. Cross Ref. No.	Dimensions H x W x D (mm)	Type/ Mount	Circuit/ Terminal	Mating Plug (below)	Pricing 1	10	100	1000
1.3 mm Male Jacks									
101194CF	PP024	6.0 x 6.0 x 9.0	8/D	1/B	1.3 mm female	$.89	$.80	$.75	$.65
2.1 mm Male Jacks									
101178CF	PP014	10.9 x 9.0 x 14.5	1/D	1/A	2.1 mm female	~~$.59~~ .49	.44	.39	.35
137672CF	PP013	10.9 x 9.0 x 14.5	5/D	3/A	2.1 mm female	~~$.59~~ .49	.44	.40	.36
151589CF	DPJ-02IA	13.0 x 12.6 Dia.	7/C	1/A	2.1 mm female	1.09	.93	.70	.65
151554CF	DPJ-026	15.1 x 8.0 Dia.	6/E	1/A	2.1 mm female	1.49	1.25	1.05	.89
159610CF	PJ1014A	35.8 x 12.6 Dia.	10/F	3/A	2.1 mm female	1.49	1.25	1.09	.89
2.5 mm Male Jacks									
109428CF	PJ025PCB	8.0 x 12.0 x 9.6	4/D	1/B	2.5 mm female	✳	.17	.15	.13
207714CF	HEC0470	11.0 x 9.0 x 14.5	1/D	1/B	2.5 mm female	.45	.35	.29	.25
101186CF	PP014A	11.0 x 9.0 x 14.5	1/D	1/A	2.5 mm female	.65	.59	.55	.49
151562CF	DPJ-026A	15.1 x 8.0 Dia.	6/E	1/A	2.5 mm female	1.49	1.24	1.13	.99
159505CF	PJ1015A	35.8 x 12.6 Dia.	10/F	3/A	2.5 mm female	1.49	1.35	1.19	.99
202358CF	HD2388	17.0 x 12.0 Dia.	7/C	3/A	2.5 mm female	1.09	.98	.88	.79
3.5 mm Female Jacks									
101143CF	PJ0352	10.0 x 10.0 x 18.5	2/E	2/A	3.5 mm male	✳	.20	.18	.16
109495CF	PJ035PM	10.5 x 9.0 x 8.8	3/C	2/A	3.5 mm male	.45	.40	.36	.32
165729CF	PJ0354	8.9 x 5.7 Dia.	9/C	3/A	3.5 mm male	.69	.59	.49	.39

Male & Female Power Plugs

- Use with mating power jacks found in table, above
- Solder eyelets 1mm diameter
- Use with AC/DC wall adapters, pgs 54-58
- Use 24 AWG 2 conductor wire, P/N 100280CF, to make custom length power cables, pg 125
- Threaded screw-on housing (strain relief)
- Shield crimp tabs




Female (1)


Male (2)


Strain Relief (A)


Female Right Angle (B)


Hard Plastic Strain Relief (C)

Part Number	Mfr. Cross Ref. No.	Description Plug ID x OD (mm)	Dimensions (mm) S (shaft) x L x ID (strain relief)	Type	Pricing 1	10	100	1000
Female Plug								
71191CF	PP137	1.3 x 3.5	9.6 x 43.9 x 4.8 (black)	1/A	$.79	$.71	$.65	$.59
191484CF	PP049W	2.1 x 5.5	9.6 x 43.9 x 4.5 (white)	1/A	.79	.69	.59	.45
28759CF	PP049	2.1 x 5.5 (P205)	8.5 x 41.4 x 4.6 (black)	1/A	.59	.49	.39	.29
147328CF	PP049L	2.1 x 5.5 (P205L)	14.0 x 46.4 x 4.6 (black)	1/A	.79	.71	.59	.49
138587CF	PJ021R	2.1 x 5.5 rt. angle	12.0 x 22.5 x 3.9 (black)	1/B	.79	.63	.55	.49
190537CF	PP109S	2.5 x 5.5 (P206S)	9.0 x 43.5 x 4.8 (black)	1/A	.39	.32	.29	.19
28767CF	PP109	2.5 x 5.5 (P206)	10.1 x 45.4 x 4.3 (black)	1/A	.59	.49	.39	.33
191492CF	PP109W	2.5 x 5.5	10.1 x 45.4 x 4.5 (white)	1/A	.69	.62	.50	.37
147336CF	PP109L	2.5 x 5.5 (P206L)	13.6 x 47.5 x 4.8 (black)	1/A	.69	.59	.53	.45
168241CF	PP109N	2.5 x 5.5	13.7 x 36.5 x 3.9 (black)	1/C	.59	.49	.43	.35
Male Plug								
101135CF	PJ1025	2.5 (P201)	11.1 x 49.0 x 4.3 (black)	2/A	.69	.55	.41	.29
147459CF	PJ1025L	2.5 (P201L)	10.5 x 48.0 x 5.0 (black)	2/A	.45	.41	.36	.33
101151CF	PJ1035	3.5 (P202)	13.8 x 51.8 x 4.2 (black)	2/A	.69	.62	.55	.49
147344CF	PJ1035L	3.5 (P202L)	14.1 x 51.0 x 5.2 (black)	2/A	~~$.69~~ .59	.53	.48	.43

DC-AC Inverters

SALE

- Input voltage: 12VDC
- Output voltage: 115VAC ±5%
- Input connector: automobile power plug
- Overload and thermal protection
- Weight: 2.0 lbs.


202809CF

202809CF: Size: 4.1"L x 1.5"W x 1.5"H
- Output conn.: 2-prong receptacle
- Size: 4.1"L x 1.5"W x 1.5"H

202817CF: Size: 5.1"L x 2.5"W x 1.5"H
- Output conn.: 3-prong receptacle


202817CF

Part No.	Prod. No.	Watts	1	10	25
202809CF	P2	80 ~~$39.95~~	$29.79	$27.09	$24.65
202817CF	P4	140 ~~$44.95~~	39.95	35.95	32.35

140 & 270-Watt DC-AC Inverters


188293CF


202016CF

- Input voltage: 10-15VDC
- Output voltage: 110VAC @ 60Hz
- Battery low shutdown
- Peak power surge capable
- Battery low shutdown
- Overload & thermal protection
- Wt.: 1.3 lbs.

188293CF: Size: 5.5"L x 2.6"W x 1.6"H
202016CF: Size: 9.3"L x 4.1"W x 2.2"H

Part No.	Description	1	10	25
188293CF	140W auto plug	$49.95	$42.49	$31.89
202016CF	270W auto/battery clip	64.95	58.49	52.65

Automobile Power Plug & Cord Assembly


115001CF 124759CF

- Screw assembly with strain relief
- Plugs directly into cigarette lighter
- Accepts .25" x 1.25" fuse

124759CF: 3' cord pigtail end

Part No.	Description	1	10	100
115001CF	W/ 5A/250VAC fuse	$1.95	$1.65	$1.19
124759CF	W/ 3A/250VAC fuse	1.89	1.72	1.69

Automobile Power Plug Splitter



- Input: cigarette adapter; non-fused
- Splits out into two 5" female automobile type receptacles

Part No.	Description	1	10	50
123182CF	Power plug splitter	$4.95	$4.49	$3.95

DC-to-DC Power Converter



A high quality 1000mA regulated DC adapter with the ability to convert power from your cigarette lighter plug in 1.5V increments from 1.5V to 9.0V. You may choose from a full range of universal plugs (2.1mm/2.5mm jack/1/8" jack/9V battery snaps) and output polarity (center + or -). Perfect for cassette players, CD players, radios, mini TV's and many other battery run appliances.

- Two DC output cigarette lighter outlets
- Built-in 10A mini blade fuse on plug
- Size: 4.9"W x 2.8"D x 1.8"H

Part No.	Description	1	10
218819CF	DC-to-DC Converter	$14.49	$12.99
218801CF	10' Extension cord	6.49	5.99

DC Brushless Fans



163475CF



102921CF

Call for additional OEM PRICING – we carry major manufacturers.

- Low profile
- Ball and sleeve bearings
- Power input by lead wires or terminals
- PBT black thermo plastic frame and impeller
- Agency approved
- Low power consumption
- Low acoustical noise rating



102939CF



104205CF

Part Number	Manufacturer	Product Number	Voltage (VDC)	Size♦ (W" x H" x D")	Air Flow (CFM)	Bearing	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	Pricing 1	10	50	100
163475CF	Nidec	C34427-55APP	5	1.00 x 1.00 x 0.40	0.5	Ball	90	0.45	—	22	2"	$5.95	$5.39	$4.35	$3.25
131246CF	Adda	AD0205LX-G50	5	1.00 x 1.00 x 0.40	1.8	Sleeve	100	0.5	UL/CSA/CE	15.6	5.5" $10.95	7.75	7.65	6.89	6.59
206156CF	Sunon	KDE0502PFB3-8	5	1.00 x 1.00 x 0.40	1.83	Ball	60	0.3	UL/CSA/TUV/CE	23	5"	11.95	10.95	9.95	8.95
196373CF	Sunon	KD0504PFB2-8	5	1.60 x 1.60 x 0.40	5.5	Ball	120	0.4	UL/CUL	23	12"	8.95	8.09	7.25	6.55
102921CF	Sunon	KD0504PFS2-8	5	1.60 x 1.60 x 0.40	6.3	Sleeve	120	0.6	UL/CUL	24.3	12"	7.95	6.95	6.25	5.59
171678CF	Delta	AFB0405HHD	5	1.60 x 1.60 x 0.80	8.6	Ball	700	2.0	—	36	2.5"	6.95	6.25	4.99	3.79
207061CF	Adda	AD0505MB-G90	5	2.00 x 2.00 x 0.40	10.5	Ball	120	0.7	UL/CSA/CE	24	11"	7.95	6.95	6.25	5.59
204433CF	Toyo	USTF802505HW	5	3.15 x 3.15 x 1.00	36	Ball	650	2.0	UL/VDE/CE	29	12"	9.95	8.99	8.09	7.25
212804CF	Sunon	KDE1202PFB3-8	12	1.00 x 1.00 x 0.40	1.3	Ball	40	0.5	UL/CUL/TUV/CE/VDE	26	5.9" $11.95	10.95	9.89	8.89	7.99
102912CF	Sunon	KD1202PFB2-8	12	1.00 x 1.00 x 0.40	2.0	Ball	60	0.7	UL/CSA/TUV	30	6"	11.95	8.59	7.95	7.49
212791CF	Sunon	KDE1202PFB1-8	12	1.00 x 1.00 x 0.40	2.4	Ball	80	1.0	UL/CUL/TUV/CE/VDE	33	5.9"	10.95	8.50	7.85	6.95
212767CF	Sunon	KDE1203PFB3-8	12	1.20 x 1.20 x 0.40	2.3	Ball	50	0.6	UL/CUL/TUV/CE/VDE	18.5	5.9"	10.95	8.75	7.85	6.95
212775CF	Sunon	KDE1203PFB2-8	12	1.20 x 1.20 x 0.40	3.0	Ball	60	0.8	UL/CUL/TUV/CE/VDE	25	5.9" $11.95	10.95	8.75	7.85	6.95
212783CF	Sunon	KDE1203PFB1-8	12	1.20 x 1.20 x 0.40	3.5	Ball	75	0.9	UL/CUL/TUV/CE/VDE	27	5.9"	10.95	8.50	7.85	6.95
212732CF	Sunon	KDE1235PFB3-8	12	1.40 x 1.40 x 0.40	3.2	Ball	50	0.6	UL/CUL/TUV/CE/VDE	18	5.9" $12.95	11.95	10.79	9.69	8.75
212741CF	Sunon	KDE1235PFB2-8	12	1.40 x 1.40 x 0.40	4.5	Ball	60	0.8	UL/CUL/TUV/CE/VDE	21	5.9"	11.95	9.49	8.49	7.65
212759CF	Sunon	KDE1235PFB1-8	12	1.40 x 1.40 x 0.40	5.2	Ball	80	1.0	UL/CUL/TUV/CE/VDE	25	5.9"	11.95	9.49	8.49	7.65
207052CF	Adda	AD0412MB-K90	12	1.60 x 1.60 x 0.25	5.5	Ball	60	0.72	UL/CSA/TUV/CE	25	5"	6.95	6.25	5.59	4.95
191476CF	Common Wealth	FP-108HX/DC	12	1.60 x 1.60 x 0.40	4.0	Sleeve	60	0.72	UL/CSA/TUV/CE	25	12"	5.95	4.79	3.59	2.55
210796CF	Sunon	KD1204PFB3H	12	1.60 x 1.60 x 0.40	4.7	Ball	50	0.6	UL/CUL/TUV/CE	24	14"	6.95	6.25	5.59	4.95
102939CF	Jamicon	JF0410S1H	12	1.60 x 1.60 x 0.40	6.3	Sleeve	110	1.3	UL/CSA/TUV/CE	34.7	10.5"	6.95	6.29	5.65	4.95
189691CF	Sunon	KD1204PFS2	12	1.60 x 1.60 x 0.40	6.3	Sleeve	70	0.9	UL/CSA/TUV	24	12"	7.95	7.19	5.75	4.35
161699CF	Sunon	KD1204PFB2-8	12	1.60 x 1.60 x 0.40	6.3	Ball	70	0.6	UL/CSA/TUV	30	12"	7.95	6.95	6.25	5.59
212716CF	Sunon	KDE1204PFB2-H	12	1.60 x 1.60 x 0.40	6.5	Ball	90	1.1	UL/CUL/TUV/CE/VDE	27	12"	6.65	4.95	4.36	3.95
213428CF	Adda[1]	ADO412HB-G76	12	1.60 x 1.60 x 0.40	6.7	Ball	100	1.2	CE	30.2	12"/3 leads	7.59	7.19	6.99	5.95
212724CF	Sunon	KDE1204PFB1-H	12	1.60 x 1.60 x 0.40	8.3	Ball	110	1.4	UL/CUL/TUV/CE/VDE	34.4	12"	6.65	4.95	4.36	3.95
174131CF	Jamicon	JF0413S1M	12	1.60 x 1.60 x 0.50	3.8	Sleeve	90	1.1	UL/CSA/TUV	29	14"	3.49	3.15	2.85	2.55
213891CF	Adda	AD0412MB-D50	12	1.60 x 1.60 x 0.60	8.1	Ball	100	1.2	UL/CUL/CE	31.8	11.5"	7.59	7.19	6.45	5.85
136178CF	Adda	AD0412MS-C70	12	1.60 x 1.60 x 0.80	5	Sleeve	110	1.32	UL/CSA	23	9"	5.49	4.99	3.99	2.99
195899CF	Sunon	KDE1204PKS2	12	1.60 x 1.60 x 0.80	6.5	Sleeve	70	0.9	UL/CSA/TUV	25.5	12"	7.95	7.19	5.75	4.29
75344CF	Delta	DFB0412M	12	1.60 x 1.60 x 0.80	7.3	Ball	80	0.8	UL/CSA/VDE/CE	28	4.5"	7.69	6.95	6.25	5.65
195881CF	Common Wealth	FP-108G/DC(S1)	12	1.60 x 1.60 x 0.80	7.6	Ball	160	1.92	UL/CSA/CE	32	12"	7.79	6.25	4.69	3.29
206447CF	Delta	DFB0412H	12	1.60 x 1.60 x 0.80	8.5	Ball	100	1.0	UL/CSA/VDE	32	8"	7.95	6.95	6.25	5.59
206164CF	Sunon	KDE1204PKBX-8	12	1.60 x 1.60 x 0.80	10	Ball	90	1.1	UL/TUV/CE	29.4	12"	8.95	7.95	6.95	5.95
212679CF	Sunon	KDE1245PFB3-H	12	1.80 x 1.80 x 0.40	6.1	Ball	60	0.7	UL/CUL/TUV/CE/VDE	23	12" $8.95	6.65	4.95	4.36	3.95
212687CF	Sunon	KDE1245PFB2-H	12	1.80 x 1.80 x 0.40	8.0	Ball	90	1.1	UL/CUL/TUV/CE/VDE	29	12" $8.95	6.65	4.95	4.36	3.95
212695CF	Sunon	KDE1245PFB1-H	12	1.80 x 1.80 x 0.40	9.5	Ball	110	1.4	UL/CUL/TUV/CE/VDE	33.8	12" $8.95	6.49	5.85	5.29	4.75
212644CF	Sunon	KDE1205PFB3-HG	12	2.00 x 2.00 x 0.40	8.5	Ball	60	0.7	UL/CUL/TUV/CE/VDE	26	12"	6.65	4.95	4.36	3.95
212652CF	Sunon	KDE1205PFB2-HG	12	2.00 x 2.00 x 0.40	10.6	Ball	80	1.0	UL/CUL/TUV/CE/VDE	31.5	12"	6.65	4.95	4.36	3.95
212661CF	Sunon	KDE1205PFB1-HG	12	2.00 x 2.00 x 0.40	12.5	Ball	110	1.4	UL/CUL/TUV/CE/VDE	36	12"	6.65	4.95	4.36	3.95
212628CF	Sunon	KDE1205PHB3-H	12	2.00 x 2.00 x 0.60	10.2	Ball	60	0.7	UL/CUL/TUV/CE/VDE	22.5	12"	8.95	7.95	6.95	6.25
206965CF	Adda	AD0512HB-D71	12	2.00 x 2.00 x 0.60	11.7	Ball	100	1.2	UL/CUL/TUV/CE	28.5	5"	8.95	7.95	6.95	6.25
139601CF	Adda	AD0512HS-D71	12	2.00 x 2.00 x 0.60	12	Sleeve	100	1.2	UL/CSA/CE	29	12"	8.95	8.09	7.25	6.55
206172CF	Sunon[2]	KDE1205PHB2-TM	12	2.00 x 2.00 x 0.60	12.7	Ball	140	1.7	UL/CSA/CE	27.8	11"/3 leads	7.95	7.19	6.45	5.85
212636CF	Sunon	KDE1205PHB2-H	12	2.00 x 2.00 x 0.60	13	Ball	80	1.0	UL/CUL/TUV/CE/VDE	29.5	12' $8.95	8.49	7.65	6.89	6.19
147491CF	Shicoh	0610-12HH	12	2.36 x 2.36 x 0.40	16.2	Ball	150	1.8	—	38	5"	7.95	7.19	5.75	4.29
104205CF	Panaflo	FBA06T12L	12	2.36 x 2.36 x 0.60	12	Sleeve	130	1.1	—	24	6"	7.95	7.19	5.75	4.29
195944CF	Adda	AD612MS-D71GL	12	2.36 x 2.36 x 0.60	14.2	Sleeve	110	1.32	UL/CSA/TUV/CE	28.8	6"	6.95	6.29	5.05	3.79
151327CF	NMB	2406KL-04W-B40-L00	12	2.36 x 2.36 x 0.60	16	Ball	130	1.6	UL/CSA/VDE/CE	31	9"	9.49	8.55	7.69	6.95

[1] **213428CF:** ATX PC type

[2] **206172CF:** Locked rotor alarm

DC Brushless Fans continued on pages 61 & 62

♦**Size Conversion: Inches to mm**

Inches	mm	Inches	mm	Inches	mm	Inches	mm
0.25	6	1.00	25	2.00	50	3.72	95
0.40	10	1.20	30	2.36	60	3.83	97
0.60	15	1.40	35	2.48	75	4.68	120
0.80	20	1.60	40	3.15	80	5.90	150
0.90	23	1.80	45	3.63	92	6.75	170

Even lower OEM pricing for larger orders!

Corporate Customers

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DC Brushless Fans *(Continued)*

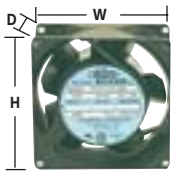

134586CF


102955CF

Call for additional OEM PRICING – we carry major manufacturers.

- Low profile
- Ball and sleeve bearings
- Power input by lead wires or terminals
- PBT black thermo plastic frame and impeller
- Agency approved
- Low power consumption
- Low acoustical noise rating


227900CF



102875CF

Part Number	Manufacturer	Product Number	Voltage (VDC)	Size♦ (W" x H" x D")	Air Flow (CFM)	Bearing	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	Pricing 1	10	50	100
175046CF	Globe Motors	D24-B08A-04W3-000	12	2.36 x 2.36 x 0.80	10.6	Ball	90	0.8	UL/CSA/TUV/CE	22	13"	$6.95	$6.29	$5.05	$3.79
144160CF	Adda	AD0612LB-C70GL	12	2.36 x 2.36 x 0.80	12.6	Ball	80	1.0	UL/CSA/TUV	22.7	6"	8.49	7.69	6.15	4.65
189595CF	Sunon	KD1206PKS2	12	2.36 x 2.36 x 0.80	16.5	Sleeve	150	1.8	UL/CSA/TUV/CE	31	12"	4.95	3.99	2.99	2.09
185818CF	Cheng	CHA6012DB	12	2.36 x 2.36 x 0.90	20.5	Ball	180	2.5	UL	33	12"	6.95	6.29	5.05	3.79
195901CF	Jamicon	JF0625S1L	12	2.36 x 2.36 x 1.00	15.3	Sleeve	170	2.0	UL/CSA/TUV	25.3	10" $3.95	2.45	2.25	2.05	1.85
75352CF	Common Wealth	FP108FDC12VS2	12	2.36 x 2.36 x 1.00	15.5	Sleeve	110	1.3	UL/CSA/TUV/CE	25	12"	6.95	6.29	5.05	3.79
136143CF	Delta	SB0612M	12	2.36 x 2.36 x 1.00	17.7	Sleeve	110	1.8	UL/CSA/VDE	26.5	5"	5.95	5.39	4.35	3.25
102947CF	Jamicon	JF0625S1H	12	2.36 x 2.36 x 1.00	20.5	Sleeve	230	2.7	UL/CSA/TUV	30.5	11"	6.95	6.29	5.05	3.79
150421CF	Jamicon	JF0625B1H	12	2.36 x 2.36 x 1.00	20.5	Ball	230	2.7	UL/CSA/TUV	30.5	10"	6.95	6.29	5.65	5.09
191548CF	Common Wealth	FP108FDC12VS1B	12	2.36 x 2.36 x 1.00	21	Ball	130	1.6	UL/CSA/TUV/CE	30	12"	7.49	5.99	4.49	3.15
195910CF	Sunon	KD1206PTS1	12	2.36 x 2.36 x 1.00	21.7	Sleeve	190	2.3	UL/CSA/TUV	34	12"	6.95	6.29	5.69	5.19
195936CF	Adda	AD7512HB	12	2.98 x 2.98 x 1.18	10.3	Ball	240	2.9	CE	38.5	12" $11.95	7.95	7.25	6.59	5.99
134586CF	Delta [1]	BFB0712H	12	2.98 x 2.98 x 1.18	11.3	Ball	360	2.6	UL/CSA/TUV/VDE	38	4"	13.95	12.59	11.29	10.19
109081CF	Adda	AD0812HS-D71	12	3.15 x 3.15 x 0.60	29	Sleeve	190	2.3	UL/CSA/TUV/CE	31.4	12"	9.95	8.99	8.09	7.25
141920CF	Adda	AD0812HB-C70	12	3.15 x 3.15 x 0.80	27.3	Ball	240	2.9	UL/CSA/CE	34	12"	11.25	10.15	8.10	6.09
16993CF	Various [2] *	FAN7315SL	12	3.15 x 3.15 x 1.00	25-40*	Sleeve	120-200*	1-2*	UL/CSA*	25*	4-12"*	6.95	6.29	5.65	4.95
75361CF	Various*	FAN6315BL	12	3.15 x 3.15 x 1.00	25-40*	Ball	120-200*	1-2*	UL/CSA*	25*	4-12"*	5.95	5.39	4.35	3.25
234894CF	ADDA	AD0812LB-A70GL	12	3.15 x 3.15 x 1.00	27.6	Ball	120	1.44	UL/CSA/TUV/CE	22.5	11.5	8.19	6.39	5.89	5.49
154288CF	Sunon	KDE1208PTS3-6	12	3.15 x 3.15 x 1.00	29.4	Sleeve	120	1.4	UL/CSA/TUV/CE	24.5	5.5"	4.55	4.09	3.29	2.45
195952CF	Panasonic	FMB-08A12M	12	3.15 x 3.15 x 1.00	30	Sleeve	124	1.5	UL/CSA	28	11"	5.95	5.39	4.35	3.25
123529CF	Adda	AD0812MS-A70GL	12	3.15 x 3.15 x 1.00	32	Sleeve	150	1.8	UL/CSA/TUV	28.3	12"	6.95	6.29	5.05	3.79
195987CF	Panasonic	FBA-08A12M	12	3.15 x 3.15 x 1.00	32.1	Sleeve	170	1.5	UL/CSA	28	4.5"	6.95	6.29	5.49	4.85
166959CF	NMB (Smart Fan)†	3110NL-012Q340-00	12	3.15 x 3.15 x 1.00	35	Ball	290	3.5	UL/CSA	35	2"	8.95	8.09	6.49	4.85
191599CF	NMB	3110KL-04W-B50	12	3.15 x 3.15 x 1.00	39	Ball	230	2.7	CSA	34	10"	7.49	6.75	5.39	3.95
185834CF	Panaflo	FBM08A12H	12	3.15 x 3.15 x 1.00	39.6	Sleeve	220	2.1	—	32	11"	6.95	6.29	5.05	3.79
206181CF	Sunon	KDE1208PTS1-6	12	3.15 x 3.15 x 1.00	42	Sleeve	220	2.6	UL/CSA/TUV/CE	34	9"	5.95	5.39	4.85	4.35
185826CF	NMB [4]	3110KL-04W-B69	12	3.15 x 3.15 x 1.00	42	Ball	340	3.1	UL/CSA/VDE/CE	35	13"/3 leads	6.95	6.29	5.05	3.79
102955CF	Sunon	KD1208PTB1-6	12	3.15 x 3.15 x 1.00	42.5	Ball	220	2.6	UL/CSA/TUV/CE	33.5	12" $3.95	6.49	5.85	5.29	4.75
172460CF	Nidec [3]	TA300DCM33406-68	12	3.15 x 3.15 x 1.00	43	Ball	290	3.5	UL/CSA	41	11"/3 leads	9.95	8.99	7.19	5.39
191601CF	NMB	3610KL-04-B20	12	3.63 x 3.63 x 1.00	34	Ball	120	1.3	UL/CSA/TUV	27	12"	6.95	6.29	5.65	5.09
196015CF	Cheng	CHA9212CB	12	3.63 x 3.63 x 1.00	44.1	Ball	190	2.3	UL/CSA	31	12"	5.95	5.35	4.29	3.25
75441CF	Common Wealth	FP108BDC12VS1	12	3.63 x 3.63 x 1.00	45	Sleeve	320	3.1	UL/CSA/TUV/CE	32	10" $3.95	3.19	2.79	2.49	2.29
196007CF	Jamicon	JF0925S1M	12	3.63 x 3.63 x 1.00	45.4	Sleeve	200	2.4	UL/CSA/TUV/CE	34	12" $3.95	2.45	2.25	2.05	1.85
196023CF	Jamicon	JF0925B1M	12	3.63 x 3.63 x 1.00	45.4	Ball	200	2.4	UL/CSA/TUV	34	10"	2.39	2.15	1.75	1.29
154641CF	Nidec	TA350DC-M33422-16	12	3.63 x 3.63 x 1.00	48	Ball	290	3.5	UL/CSA	43	12"	7.55	6.79	5.45	4.09
206199CF	Sunon	KDE1209PTS1-6	12	3.63 x 3.63 x 1.00	48.5	Sleeve	190	2.3	UL/CSA/TUV/CE	32.5	12" $3.95	3.99	3.65	3.25	2.95
189780CF	Delta	DFB0912H	12	3.63 x 3.63 x 1.00	49.5	Ball	300	3.1	UL/CSA/TUV	35	5"	7.55	6.79	5.45	4.09
172478CF	Delta [5]	DFB0912H-R00	12	3.63 x 3.63 x 1.00	49.5	Ball	300	3.1	UL/CSA,/VDE/CE	35	8"/3 leads	6.95	6.29	5.05	3.79
190983CF	Sunon	KD1209PTB1-6A	12	3.63 x 3.63 x 1.00	51	Ball	220	2.6	UL/CSA/TUV	34	12"	7.25	6.55	5.89	5.29
116476CF	Jamicon	JF0925S1H	12	3.63 x 3.63 x 1.00	52	Sleeve	350	4.2	UL/CSA/TUV	37	10"	7.95	7.15	5.72	4.29
162739CF	NMB (Smart Fan)†	3610KL-04W-B56	12	3.63 x 3.63 x 1.00	55	Ball	430	3.8	UL/CSA/VDE/CE	37	10"/3 leads	7.95	7.19	5.75	4.35
102963CF	Nidec	TA350DC-M33503-55	12	3.63 x 3.63 x 1.00	56	Ball	400	4.8	UL/CSA	45	8"	7.95	6.95	6.25	5.59
213567CF	Nidec [1]	A34124-33	12	3.83 x 3.72 x 1.30	25	Ball	650	7.8	UL/CUL	60	11.5"/3 leads	19.95	17.95	16.25	14.59
174140CF	Common Wealth	FP108MS3	12	4.68 x 4.68 x 1.00	54	Sleeve	140	1.7	UL/CSA/TUV/CE	25	12"	6.95	6.29	5.05	3.79
174916CF	NMB	4710NL-04T-B30	12	4.68 x 4.68 x 1.00	80	Ball	320	3.8	UL/CSA/VDE/CE	34	terminals	3.95	3.49	3.19	2.89
174086CF	Jamicon	JF1225S1M	12	4.68 x 4.68 x 1.00	74	Sleeve	250	3.0	UL/CSA/CE	37	11" $7.95	2.55	2.29	2.09	1.89
227900CF	Common Wealth	FP-108M-S1-B	12	4.68 x 4.68 x 1.00	80	Ball	330	4.0	UL/CSA/VDE/CE	42	12"	10.95	9.85	8.89	7.99
102875CF	Delta	WFB1212H	12	4.68 x 4.68 x 1.00	86.5	Ball	360	4.3	UL/CSA/TUV	37.6	12"	10.95	9.89	7.95	5.95

[1] **134586CF/213567CF:** Blower type
[2] **16993CF:** Replacement for the PC/XT computer power supply fan
[3] **172460CF:** Locked rotor alarm
[4] **185826CF:** Speed sensor
[5] **172478CF:** Rotor locking input
† Temperature control: P/N **166959CF** (40˚C); P/N **162739CF** (50˚C, 3 leads)
* Manufacturer & specifications may vary

DC Brushless Fans continued on page 62

♦**Size Conversion: Inches to mm**

Inches	mm	Inches	mm	Inches	mm	Inches	mm
0.25	6	1.00	25	2.00	50	3.72	95
0.40	10	1.20	30	2.36	60	3.83	97
0.60	15	1.40	35	2.48	75	4.68	120
0.80	20	1.60	40	3.15	80	5.90	150
0.90	23	1.80	45	3.63	92	6.75	170

See the yellow and green highlighted items.

Jameco Special Values!

Details on page 3.

DC Brushless Fans *(Continued)*


174078CF


136160CF

Call for additional OEM PRICING – we carry major manufacturers.

- Low profile
- Ball and sleeve bearings
- Power input by lead wires or terminals
- PBT black thermo plastic frame and impeller
- Agency approved
- Low power consumption
- Low acoustical noise rating

SALE


227248CF


153411CF

Part Number	Manufacturer	Product Number	Voltage (VDC)	Size♦ (W" x H" x D")	Air Flow (CFM)	Bearing	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	Pricing 1	10	50	100
174924CF	Globe Motors	D47-B10A-04T3-000	12	4.68 x 4.68 x 1.00	90	Ball	740	6.8	UL/CSA	39	terminals	$6.95	$6.29	$5.05	$3.79
163619CF	NMB (Smart Fan)†	4710NL012P535P0	12	4.68 x 4.68 x 1.00	90	Ball	740	8.9	—	38.5	12"	4.95	4.49	3.59	2.69
159020CF	Sunon	KDE1212PMS1-6A	12	4.68 x 4.68 x 1.50	107	Sleeve	570	6.8	UL/CSA/TUV	41	12"	$12.95 11.95	10.79	9.69	8.69
163601CF	Delta (Smart Fan)†	WFC1212BE	12	4.68 x 4.68 x 1.50	108	Ball	650	6.6	UL/CSA/VDE	41.3	12"	10.95	9.89	7.95	5.95
94625CF	Sunon	KD1212PMB1-6A	12	4.68 x 4.68 x 1.50	108	Ball	570	6.8	UL/CSA/TUV/CE	42	12"	11.95	10.79	8.65	6.49
189851CF	Delta	WFB1212HE	12	4.68 x 4.68 x 1.50	108	Ball	490	5.9	UL/CSA/VDE/CE	41.3	12"	11.95	10.79	8.65	6.45
206201CF	Sunon	KDE2404PKB3	24	1.60 x 1.60 x 0.80	6	Ball	30	0.7	UL/CSA/TUV/CE	24	12"	$7.95 7.49	6.79	6.09	5.49
100909CF	Sunon	KD2404PKS2	24	1.60 x 1.60 x 0.80	6.5	Sleeve	50	1.2	UL/CSA/TUV/CE	25.5	12"	7.95	7.19	5.75	4.19
140661CF	NMB	2408NL-05W-B60	24	2.36 x 2.36 x 0.80	18.4	Ball	100	2.4	—	31	2"	5.95	5.39	4.34	3.24
174107CF	Jamicon	JF0625S2M	24	2.36 x 2.36 x 1.00	18	Sleeve	130	3.1	UL/TUV	28.5	10"	4.95	4.49	3.59	2.69
189860CF	Jamicon	JF0625B2M	24	2.36 x 2.36 x 1.00	18	Ball	130	3.1	UL/CSA/TUV/CE	28.5	10"	8.95	8.09	7.25	6.55
227248CF	Mechatronics	F6025E24B	24	2.36 x 2.36 x 1.00	24	Ball	125	3.0	UL/CUL/TUV	36	12"	8.95	8.09	7.29	6.59
174078CF	Jamicon	JF0825S2M	24	3.15 x 3.15 x 1.00	32	Sleeve	130	3.1	UL/CUL/TUV	28	10"	4.55	4.09	3.29	2.45
162923CF	Jamicon	JF0825S2H	24	3.15 x 3.15 x 1.00	39.2	Sleeve	150	3.6	UL/CSA/TUV	31	10"	$7.95 2.75	2.39	2.15	1.95
136160CF	Jamicon	JF0825B2H	24	3.15 x 3.15 x 1.00	39.2	Ball	150	3.6	UL/CSA/TUV	31	12"	9.49	8.55	7.69	6.95
189878CF	Sunon	KD2408PTB1-6A	24	3.15 x 3.15 x 1.00	42.5	Ball	220	2.6	UL/CSA/TUV/CE	36.5	12"	9.95	8.99	7.19	5.39
189886CF	NMB	3610KL-05W-B30	24	3.63 x 3.63 x 1.00	40.6	Ball	87	2.1	UL/CSA/VDE	34	12"	7.95	6.39	4.79	3.35
174094CF	Jamicon	JF0925S2H	24	3.63 x 3.63 x 1.00	52	Sleeve	190	4.6	UL/CUL	37	10"	7.95	7.19	5.75	4.35
206210CF	Sunon	KDE2412PTS3-6A	24	4.68 x 4.68 x 1.00	67	Sleeve	130	3.1	UL/CSA	35	12"	$10.95 9.95	8.99	8.09	7.25
175281CF	Globe Motors	D47B10A05W2000	24	4.68 x 4.68 x 1.00	70	Ball	160	2.9	UL/CSA/TUV/CE	34	12"	12.95	11.69	9.35	6.99
206228CF	Sunon [1]	KDE2412PMS1-6A	24	4.68 x 4.68 x 1.00	107	Sleeve	310	7.4	UL/CSA/TUV/CE	41	11"/3 leads	14.95	13.95	12.95	11.95
100968CF	Sunon	KDE2412PMB3-6A	24	4.68 x 4.68 x 1.50	83	Ball	140	3.4	UL/CSA/TUV/CE	35	12"	12.95	11.69	9.35	6.99
153411CF	Sunon	KD2412PMB2-6A	24	4.68 x 4.68 x 1.50	98	Ball	230	5.5	UL/CSA/TUV	36.5	12"	$14.95 11.95	10.79	9.69	8.75
166730CF	Mechatronics	A9225H48B	48	3.63 x 3.63 x 1.00	51	Ball	100	4.8	UL/CSA/TUV	36	13"	8.79	7.85	6.99	6.19
175468CF	NMB	5920PL-07W-B30	48	6.75 x 5.90 x 1.50	210	Ball	400	14.4	UL/CSA	51	12.5"	7.59	6.85	6.15	5.55
196710CF	PAPST [2]	7118N/12	48	6.75 x 5.90 x 1.50	212	Ball	250	12	UL/CSA/VDE/CE	55	13"/3 leads	$14.95 6.45	5.85	5.35	4.85

[1] **206228CF:** Locked rotor alarm [2] **196710CF:** Speed sensor † Temperature control: 35˚C

AC Tube Axial Fans



111915CF


16977CF

Call for additional OEM PRICING – we carry major manufacturers.

- Rating 115 & 220VAC @ 50-60Hz
- Low acoustical noise rating
- Agency approved fans
- Ball and sleeve bearings
- Air flow from 10.2 to 226 CFM

Fan Power Cords on Next Page


102904CF


75432CF

Part Number	Manufacturer	Product Number	Voltage (VAC)	Size♦ (W" x H" x D")	Air Flow (CFM)	Bearing	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	Pricing 1	10	50	100
162704CF	Toyo	USTF60301153W	115	2.36 x 2.36 x 1.18	11	Ball	38	4	UL/CSA/CE	29	12" leads	$15.49	$13.95	$12.55	$11.29
213866CF	Fulltech	UF60D11H	115	2.36 x 2.36 x 1.18	10.2	Ball	35	4	UL/CUL/VDE/CE	28	12" leads	15.95	14.39	12.95	11.65
146077CF	Common Wealth	FP108AX-S1-B	115	3.15 x 3.15 x 1.00	23	Ball	140	14	UL/CE	29	12" leads	12.95	11.69	10.49	9.45
75408CF	Fulltech	UF80B12SWH	115	3.15 x 3.15 x 1.00	24	Sleeve	140	14	UL/CSA/TUV/CE	35	12" leads	14.95	13.49	12.15	10.95
212610CF	Fulltech	UF80B12BTH	115	3.15 x 3.15 x 1.00	24	Ball	140	14	UL/CSA/TUV/CE	35	terminals	12.95	11.95	10.95	9.95
111915CF	Fulltech	UF80A12SWL	115	3.15 x 3.15 x 1.50	25	Sleeve	110	12	UL/CSA/TUV/CE	32	12" leads	11.95	10.95	9.95	8.95
16977CF	Fulltech	UF80A12BWL	115	3.15 x 3.15 x 1.50	25	Ball	110	11	UL/CSA/TUV/CE	32	12" leads	13.95	12.59	11.35	10.19
16969CF	Fulltech	UF80A12BTL	115	3.15 x 3.15 x 1.50	25	Ball	110	12	UL/CSA/TUV/CE	32	terminals	14.95	11.99	8.99	8.59
102904CF	Fulltech	UF80A12BWH	115	3.15 x 3.15 x 1.50	29	Ball	120	12	UL/CSA/TUV/CE	36	12" leads	14.95	13.49	12.15	10.95
212601CF	Fulltech	UF80A12BTH	115	3.15 x 3.15 x 1.50	30	Ball	120	12	UL/CSA/TUV/CE	36	terminals	13.95	12.95	11.95	10.95
75432CF	Sunon	SF11592A-1092HSL	115	3.63 x 3.63 x 1.00	36	Sleeve	130	12	UL/CSA/TUV/CE	39	12" leads	13.95	12.59	11.35	10.19
75459CF	Sunon	SF11592A-1092HBT	115	3.63 x 3.63 x 1.00	37	Ball	110	12	UL/CSA/TUV/CE	40	terminals	15.95	14.39	12.95	11.65

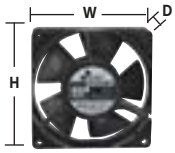
♦**Size Conversion: Inches to mm**

Inches	mm	Inches	mm	Inches	mm	Inches	mm
0.25	6	1.00	25	2.00	50	3.72	95
0.40	10	1.20	30	2.36	60	3.83	97
0.60	15	1.40	35	2.48	75	4.68	120
0.80	20	1.60	40	3.15	80	5.90	150
0.90	23	1.80	45	3.63	92	6.75	170



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118965CF


109874CF

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- Low acoustical noise rating
- Agency approved fans
- Ball and sleeve bearings
- Air flow from 11 to 226 CFM

Fan Power Cords Below


106585CF


102891CF

Part Number	Manufacturer	Product Number	Voltage (VAC)	Size♦ (W" x H" x D")	Air Flow (CFM)	Bearing	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	Pricing 1	10	50	100
124062CF	Sunon	SP101AT1122HBT	115	4.68 x 4.68 x 1.00	78	Ball	180	18	CSA/TUV/CE	46	terminals	$13.49	$10.95	$9.89	$9.19
118965CF	Fulltech	UF12A12BTL1	115	4.68 x 4.68 x 1.50	64	Ball	80	15	UL/CSA/TUV/CE	37	terminals	14.95	13.49	12.15	10.95
109874CF	Fulltech	UF12A12STL	115	4.68 x 4.68 x 1.50	81	Sleeve	150	15	UL/CSA/TUV/CE	38	terminals	12.95	11.69	10.55	9.49
111894CF	Common Wealth	FP108-1-S1/W	115	4.68 x 4.68 x 1.50	105	Sleeve	180	17	UL/CSA/CE	47	12" leads	13.95	12.59	11.35	10.19
106585CF	Common Wealth	FP108-1-S1/T	115	4.68 x 4.68 x 1.50	105	Sleeve	180	12	UL/CSA/CE	47	terminals	15.95	14.39	12.95	11.65
16934CF	Common Wealth	FP108-1-S1-B	115	4.68 x 4.68 x 1.50	105	Ball	200	17	UL/CSA/TUV/CE	47	terminals	16.95	15.29	13.75	12.39
212599CF	Fulltech	UF12A12BWH	115	4.68 x 4.68 x 1.50	106	Ball	190	15	UL/CSA/TUV/CE	46	12" leads	12.95	11.95	10.95	9.95
206308CF	Adda	AA1281UB-AT	115	4.68 x 4.68 x 1.50	107	Ball	230	24	CE	48	terminals	14.95	13.49	12.15	10.95
102883CF	Sunon	SP100A-1123XBT	115	4.68 x 4.68 x 1.50	117	Ball	240	20	UL/CSA/TUV/CE	50	terminals	14.95	13.95	12.95	11.95
108724CF	Fulltech	UF15AC12BTH	115	6.75 x 5.90 x 1.50	211	Ball	230	28	UL/CSA/TUV/CE	58	terminals	$29.95 27.95	27.10	26.29	25.49
212564CF	Fulltech	UF15PC12BTL	115	6.75 x 5.90 x 2.00	113	Ball	260	30	UL/CSA/TUV/CE	41	terminals	34.95	32.49	28.49	25.49
212572CF	Fulltech	UF15PC12BWL	115	6.75 x 5.90 x 2.00	113	Ball	260	30	UL/CSA/TUV/CE	41	12" leads	29.95	26.95	23.95	21.49
212581CF	Fulltech	UF15PC12BWH	115	6.75 x 5.90 x 2.00	226	Ball	250	30	UL/CSA/TUV/CE	58	12" leads	29.95	26.95	23.95	21.49
189683CF	Fulltech	UF15PC12BTH	115	6.75 x 5.90 x 2.00	226	Ball	250	30	CSA	58	terminals	29.95	26.95	24.29	21.79
174932CF	NMB	3115FS-23T-B10	220	3.15 x 3.15 x 1.50	25	Ball	30	4.6	UL/CSA/TUV/CE	25	terminals	12.99	11.69	9.35	6.99
100917CF	Sunon	SF23080A/2083HSL	220	3.15 x 3.15 x 1.50	30	Sleeve	60	13.5	UL/CSA/TUV/CE	35	12" leads	10.49	8.39	7.55	5.66
209365CF	Innovative	4C-230LB	220	4.68 x 4.68 x 1.50	63	Ball	60	9	TUV/CE	34	10" leads	$13.95 12.95	11.69	10.49	9.45
102891CF	Sunon	DP200A-2123XBT	220	4.68 x 4.68 x 1.50	117	Ball	120	21	UL/CSA/TUV/CE	50	terminals	15.95	14.39	12.95	11.65

♦Size Conversion: Inches to mm

Inches	mm	Inches	mm	Inches	mm	Inches	mm
0.25	6	1.00	25	2.00	50	3.72	95
0.40	10	1.20	30	2.36	60	3.83	97
0.60	15	1.40	35	2.48	75	4.68	120
0.80	20	1.60	40	3.15	80	5.90	150
0.90	23	1.80	45	3.63	92	6.75	170

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back! Details on page 226.


191636CF

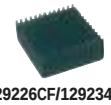

174115CF


203123CF


181278CF


151298CF


190545CF


129226CF/129234CF

See page 181 for detailed specifications and prices on CPU Heat Sink Fans!

Fan Guards, Filters & Cords

Compatible with DC and AC Fans – pages 60 - 63

- All guards and filters fit all fans by matching the size dimension.
  Example: P/N 75408CF fan (3.15") matches P/N 31923CF metal guard (3.15").

Part No.	Description♦	1	10	100	250
123502CF	1.60" metal (chrome) guard	$.49	$.43	$.39	$.35
163432CF	2.00" metal (chrome) guard	.59	.53	.48	.43
120037CF	2.36" metal (chrome) guard	.79	.71	.64	.58
31923CF	3.15" metal (chrome) guard	.79	.65	.52	.49
123511CF	3.63" metal (chrome) guard	.85	.65	.56	.51
25734CF	4.68" metal (chrome) guard	1.09	.89	.69	.65
138561CF	3.15" plastic guard with mesh	1.39	1.19	1.05	.95
229665CF	3.63" plastic guard with mesh	1.49	1.35	1.25	1.09
196816CF	4.68" plastic guard with mesh	1.95	1.55	1.39	1.25
138579CF	3.15" alum. washable filter	2.95	2.65	2.39	2.15
192874CF	3.63" alum. washable filter	1.59	1.45	1.29	1.19
130104CF	4.68" alum. washable filter	3.49	3.19	2.75	2.49


123502CF


120037CF


31923CF/123511CF


25734CF


138561CF/196816CF


138579CF/192874CF
130104CF


229665CF

Fan Power Cords: 24" Straight and Right-Angle

• Cord type: SPT-1 (2) conductor black • Voltage rating: 300V • Temperature range: 60°C • Fits all terminal fans

Part No.	Description	Length	1	10	100	250
28564CF	Straight socket cord	24"	$.75	$.68	$.55	$.50
104192CF	90˚ angle socket cord	24"	.87	.76	.61	.57

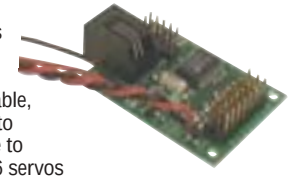

28564CF


104192CF

Color Code Legend: New Sale Qty Save

Scott Edwards Electronics, Inc.

Serial Servo Controller Module

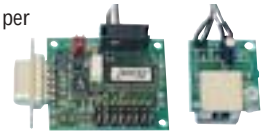


- Controls 8 pulse-proportional servos
- Receives serially at 2400 or 9600 baud
- Module is addressable, allowing two units to share the same line to control a total of 16 servos
- Connections to serial input can be established using a modular jack (P/N 115553CF, pg 205) or modular adapter from DB9 to RJ11 (P/N 114737CF, pg 205)
- Size (PCB): 1.9"L x 1.4"W • One-year warranty

Part No.	Description	1	10
151001CF	Mini SSC II	$43.95	$41.79

PONTECH

Servo Controller Board



- Controls 1 to 8 servos per board, 8-bit precision
- Interface to PC through RS-232 port @ 2400-19,200bps
- 5 channel, 8-bit A/D input port for reading 0 to 5V
- IR-receiver & transmitter feature
- Source/sink: 25mA per pin • 8k EEPROM
- Size: 1.7"L x 1.4"W (main board); 1.1"L x 0.9"W (infrared board)

Includes: Manual, supplement & sample code software

Part No.	Description	1	10
153648CF	Servo controller board	$84.95	$79.99

See motor selection on pages 65-67.



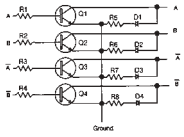
rmv electronics

12-Bit Stepper Motor Control and Analog/Digital DAC Board



- High speed serial port interface up to 230.4kbps
- 4 channels with precision signal conditioning – 100mV, 2.5V and 5.0V inputs
- 24 digital I/O (TTL) and 11 analog channels with 12-bit resolution
- PWM, period measurement and stepper motor functions
- Free 32-bit DLL, OCX and Labview driver for rapid system development
- Size: 6.0"L x 2.6"W • Weight: 0.7 lbs.

Driver Schematic



Requires: External driver circuit parts kit (P/N 208573CF, below) – consisting of 5 ea. 1kΩ 1/4W resistors, 5 ea. 330Ω 1/4W resistors, 5 ea. MJE 3055T transistors, and 5 ea. 1N4003 diodes

Part No.	Description	1	10
109911CF	Stepper motor control board ~~$139.95~~	$129.95	$116.99
208573CF	Unipolar circuit parts kit	3.49	3.15

32-Bit Stepper Motor Controller

One Axis



- Controls one bipolar stepper motor with 32-bit absolute position
- Interface to PC through RS232 or RS485 @ 2400-19,200 bps
- Full, half or wave step modes
- Multiple boards may share same serial line (RS485 only)
- 2 channel general purpose 8-bit A/D input port for reading 0 to 5V
- 4-bit digital input for home limits
- Addressable up to 255 boards
- Size: 4.4"L x 2.3"H • Weight: 0.7 lbs.

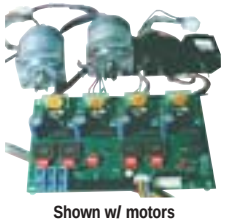
PONTECH

Includes: Manual and sample code software

Part No.	Description	1	10
153621CF	32-bit controller	$158.95	$150.99

rmv electronics

Multi-Stepper Motor Control Board



Shown w/ motors – not included

- Simultaneous/independent control of up to 16 stepper motors through a single serial port
- High speed serial communication interface 9.6kbps-230.4kbps
- 11 analog channels, A/D converter, 12-bit resolution
- 24-bit position register; can be read while motor is moving
- Linear acceleration/deceleration capability up to 8500 step/sec.
- Full step (monophasic and biphasic), half step and external driver modes
- Current-mode coil driver up to 2A/45V
- Automatic power down prevents motor overheating
- External driver control outputs: step, direction and power control
- 26 digital I/O and two SPI interfaces for control of external devices
- 32 bits DDL interface for Windows® 9X, NT & Linux
- Internal FIFO RAM (128 bytes) allows customized motion profiles
- Size: 7.7"L x 5.0"W x 1.0"H • Weight: 0.7 lbs.

Part No.	Description	1	10
168727CF	Stepper motor control board	$399.95	$379.95



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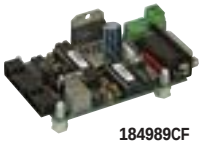
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KAE

Industrial Motion Controllers for Brush, Brushless and Stepper Motors

All JR Kerr Automation Engineering controllers include integrated power amplifiers. Up to 32 controllers can be daisy-chained from a single full-duplex RS485 port. For RS-232 to RS-485 adapter see P/N 184971CF (below).



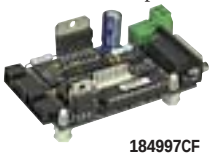
184989CF



185009CF



184971CF



184997CF



184962CF



184954CF

184989CF: PIC-SERVO motor control board
- For brush-type DC motors with 2 or 3 channel incremental encoders
- P.I.D. Servo control, trapezoidal position profiling, velocity mode, 32-bit resolution
- Integrated 12 to 48VDC supply power amplifier @ 3A continuous, 6A peak
- Limit switch inputs, general purpose analog input, PWM, DIR output for use with external amps

185009CF: PIC-SERVO 3PH motor control board for brush or brushless motors
- For 3-phase brushless motors with hall effect sensors or conventional DC brush-type motors
- High current amplifier: 7A continuous, 10A peak, 12 to 48VDC supply
- Same features as 184989CF above but with support for linear & circular interpolation using the PIC-SERVO CMC chipset

184971CF: Z232-485 serial port adapter
- Lets you operate the controllers above from any standard RS-232 port

Part No.	Description	Size (L" x W" x H")	1	10
184989CF	PIC-SERVO	3.1 x 2.1 x 0.9	$179.95	$161.95
185009CF	PIC-SERVO 3PH	3.1 x 3.1 x 1.0	239.95	215.95
184971CF	Z232-485	3.1 x 2.1 x 0.5	59.95	53.95

184997CF: PIC-STEP motor control board
- Integrated indexer and driver for 2 or 4 phase stepper motors
- Full/half step bipolar chopper drive, 2A per phase, 7.5 to 46VDC supply
- Trapezoidal position profiling, velocity mode, up to 50,000 steps per second
- Limit switch inputs, general purpose outputs, step/dir outputs for use with external drivers

184962CF: PIC-I/O multifunction I/O control board
- 12 I/O bits software configurable as inputs or outputs
- One counter input
- Three 8-bit analog inputs, two PWM outputs with high current drivers

184954CF: Simple sequencer stand-alone controller
- Programmable master controller for building stand-alone systems with the controllers above
- Plugs into a socket on the Z232-485 board (P/N 184971CF, left)

Part No.	Description	Size (L" x W" x H")	1	10
184997CF	PIC-STEP	3.1 x 2.1 x 0.9	$159.95	$143.95
184962CF	PIC-I/O	3.1 x 2.1 x 0.6	99.95	89.95
184954CF	Simple sequencer	2.1 x 1.0 x 0.4	59.95	53.95

12VDC Bipolar Stepper Motor

3.6˚ / Step

- No. of phases: 2
- Detent torque: 80 g-cm
- Holding torque: 600 g-cm
- Phase resistance: 25Ω
- Phase inductance: 31mH
- Current: 480mA
- Mounting hole size: 0.11"
- Shaft size: 0.43"L x 0.197"Dia.
- Motor size: 1.66"Dia. x 1.31"H



Part No.	Mfr. Cross Ref. No.	1	10	50
105881CF	SM4203	$6.49	$5.85	$5.29

12VDC Geared Unipolar Stepper Motor

.09˚ / Step

- No. of phases: 4
- Detent torque: 400 g-cm
- Holding torque: 400 g-cm
- Phase resistance: 200Ω
- Phase inductance: 49.5mH
- Current: 60mA
- Mounting hole size: 0.14"
- Shaft size: 0.36"L x 0.194"Dia.
- Motor size: 1.18"Dia. x 0.68"H



Part No.	Mfr. Cross Ref. No.	1	10	50
173180CF	30BYJ02AH	$12.99	$11.69	$10.49

5VDC Unipolar Stepper Motor

7.5˚ / Step

- No. of phases: 4
- Detent torque: 90 g-cm
- Holding torque: 750 g-cm
- Phase resistance: 9Ω
- Phase inductance: 10mH
- Current: 550mA
- Mounting hole size: 0.13"
- Shaft size: 0.40"L x 0.117"Dia.
- Motor size: 1.65"Dia. x 0.83"H



Part No.	Mfr. Cross Ref. No.	1	10	50
151861CF	C42M048A04	$6.19	$5.59	$5.05

Bipolar and Unipolar Stepper Motors

SALE



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8

- Excellent for precision control
- Can be operated in forward/reverse mode
- See pages 7-11 for compatible power supplies

Part Number	Mfr. Cross Ref. No.	Fig.	Step Angle	No. of Phases	Drive System	Volt. (VDC)	Phase Resis. (Ohms)	Curr. (mA)	Phase Inductance (mH)	Detent Torque (g-cm)	Holding Torque (g-cm)	Mounting Hole Space Diagonal (in.)	Mounting Holes (in.)	Shaft Dia. (in.)	Shaft Length (in.)	Motor Dia. (in.)	Motor Height (in.)	Pricing 1	Pricing 10	Pricing 50
117954CF	LB82773-M1	1	7.5°	2	Bipolar	5	6	800	7	100	1080	2.60	1.95	0.250	0.75	2.25	1.00	$4.29	$3.89	$3.09
163395CF	5017-935[1]	2	0.9°	2	Bipolar	8.4	30	280	25	36	791	1.73	0.15	0.155	0.29	1.64	1.20	5.59	4.79	3.59
163408CF	4017-806[1]	2	1.8°	2	Bipolar	9.2	38	240	52	36	664	1.73	0.15	0.155	0.23	1.66	1.25	2.49	2.15	1.65
105881CF	SM4203[2]	3	3.6°	2	Bipolar	12	25	480	31	80	600	1.73	0.11	0.197	0.43	1.66	1.31	6.49	5.85	5.29
164056CF	M82101-P1	1	7.5°	3	Unipolar	5	20	255	5	9	94	1.4	0.13	0.078	0.35	1.00	0.46	1.85	1.69	1.55
151861CF	C42M048A04	4	7.5°	4	Unipolar	5	9	550	10	90	750	1.94	0.13	0.117	0.40	1.65	0.83	6.19	5.59	5.05
171601CF	PF35T48L4[3]	1	3.6°	4	Unipolar	7	20	350	9	40	680	1.68	0.14	0.078	0.47	1.38	0.58	4.99	4.25	3.19
166705CF	PM42S-096	1	3.8°	4	Unipolar	12	84	140	16	60	450	1.95	0.13	0.117	0.40	1.66	1.64	3.95	3.39	2.55
213321CF	35BY48-27	7	7.5°	4	Unipolar	12	15	800	68	90	460	1.96	0.13	0.078	0.25	1.38	0.83	~~$14.95~~ 12.95	11.69	10.49
173180CF	30BYJ02AH[4]	6	.09°	4	Unipolar	12	200	60	49.5	400	400	1.42	0.14	0.194	0.36	1.18	0.68	12.99	11.69	10.49
192794CF	PM425048[5]	5	7.5°	4	Unipolar	24	45	500	17.5	39	570	1.97	0.09	0.117	0.33	1.66	0.54	~~$4.95~~ 1.49	1.35	1.25
210382CF	5620	1	7.5°	4	Unipolar	24	100	436	60	40	380	1.67	0.13	0.078	0.40	1.38	0.58	~~$5.95~~ 4.95	4.49	4.05
210391CF	STP42N196S	8	3.75°	4	Unipolar	24	110	436	60	60	600	1.95	0.13	0.118	0.42	1.65	0.54	~~$5.95~~ 4.95	4.49	4.05

[1] **163395CF/163408CF:** Dual shaft

[2] **105881CF:** P/N 25216CF (IC, MC3479P, pg 76) biphase stepper motor driver can be used to operate; Use P/N 161998CF for shaft coupler, see page 216

[3] **171601CF:** Dual shaft w/ 10 tooth gear

[4] **173180CF:** Motor step angle 7.5˚; gear ratio 85.25:1

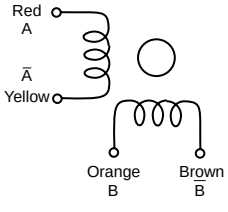
[5] **192794CF:** Single shaft w/ 12 tooth gear

GBM is an ISO-9001 Certified Company

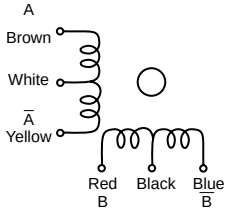
GBM Bipolar and Unipolar Stepper Motors

- Bearing type: ball
- Dielectric strength: 500V, 50Hz/minute
- 18" lead wires
- Step angle: 1.8˚
- Ambient temperature: -10˚C to +55˚C
- Insulation resistance: 100MΩ @ 500VDC
- Use P/N 161998CF, pg 216, for shaft coupler

Bipolar (Fig. 1)



Unipolar (Fig. 2)





† NEMA 17



† NEMA 23

Part Number	Product Number	Fig.	NEMA† Form	No. of Phases	Drive System	Voltage (VDC)	Phase Resistance (Ohms)	Current (mA)	Phase Inductance (mH)	Detent Torque (g-cm)	Holding Torque (g-cm)	Mounting Hole Space Diagonal (in.)	Mounting Holes (in.)	Shaft Diameter (in.)	Shaft Length (in.)	Motor Diameter (in.)	Motor Height (in.)	Weight (lbs.)	Pricing 1	Pricing 10	Pricing 50
224021CF	42BYG016	2	17	4	Unipolar	12	75	160	55	200	950	1.73	0.1	0.197	0.7	1.7	1.3	0.5	$16.95	$15.25	$13.75
155459CF	42BYG023*	1	17	2	Bipolar	12	30	400	36	220	2,100	1.73	0.1	0.197	0.6	1.7	1.3	0.5	17.95	16.29	14.59
172646CF	42BYG205	2	17	4	Unipolar	9.6	75	480	15	220	2,300	1.73	0.1	0.197	0.9	1.7	1.4	0.5	17.95	16.19	14.55
155432CF	42BYG228	2	17	4	Unipolar	12	30	400	23	220	2,000	1.73	0.1	0.197	0.9	1.7	1.5	0.5	17.95	16.29	14.59
162026CF	57BYG084	2	23	4	Unipolar	12	20	600	22	725	6,000	2.65	0.2	0.250	1.0	2.2	2.0	1.3	26.95	24.29	21.85
223870CF	57BYG070	2	23	4	Unipolar	5.4	3.6	1500	6.0	980	9,000	2.65	0.2	0.250	0.8	2.2	2.2	2.0	49.95	44.95	40.49

* dual shaft

Color Code Legend: New Sale Dry Save Closeout

3-150VDC Motors

MITSUMI
NMB
RICHI MOTOR
star motor
JOHNSON ELECTRIC


154915CF/154923CF


211246CF


177498CF


181411CF


192807CF


153656CF


174991CF


181112CF


174692CF


162579CF


206949CF


181964CF


173681CF


161082CF

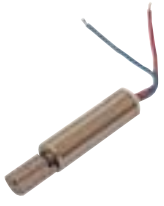
Part Number	Manufacturer Cross Reference No.	Manufacturer	Efficiency	Nominal Voltage (VDC)	Voltage Range (VDC)	@ Maximum Efficiency Current (Amps)	@ Maximum Efficiency RPM	@ Maximum Efficiency Torque (g-cm)	Terminal Type	Shaft Dia.	Shaft Length	Size (D" x L")	Pricing 1	Pricing 10	Pricing 100
154915CF	ST-130-12240[1]	Star Motor	55	3	1.5-3	0.170	3588	7.4	0.09"/solder	0.08"	0.37"	0.79 x 1.13	**$1.29**	**$1.09**	**$.84**
154923CF	ST-130-22770[1]	Star Motor	40	3	1.5-3	1.150	12500	10.3	0.09"/solder	0.08"	0.37"	0.79 x 1.13	**.99**	**.89**	**.79**
211246CF	RC-260RA-2670	Mabuchi Motor	53	4.5	3-4.5	1.430	15290	21.8	0.11"/solder	0.08"	0.28"	0.93 x 1.06	**1.95**	**1.75**	**1.59**
177498CF	RC280RA-2485	Mabuchi Motor	57	7.2	3-14	1.180	14260	33.3	11"/solder	0.08"	0.43"	0.95 x 1.20	**1.75**	**1.55**	**1.39**
181411CF	HC685G-61810	Johnson Electric	—	5	3-14	0.470	10000	18.8	0.187"/solder	0.13"	0.54"	1.40 x 1.98	**2.95**	**2.55**	**1.89**
192807CF	RF500TB-14415	Mabuchi Motor	55	6	1.5-9	0.130	3000	14.0	0.08"/solder	0.08"	0.35"	1.25 x 0.76	**1.99**	**1.69**	**1.29**
153656CF	RS550PF[2]	Mabuchi Motor	—	12	6-15	1.400	6500	44.1	0.15"/solder	0.13"	0.66"	1.45 x 2.25	**3.29**	**2.99**	**2.69**
174991CF	6424CL09WB20	NMB	—	10	8-12	0.430	4100	—	8" wires	0.12"	0.64"	1.62 x 0.64	**1.85**	**1.65**	**1.49**
181112CF	M25N-2	Mitsumi	—	12	5-15	0.018	3000	18.0	11"/solder	0.08"	0.26"	0.97 x 1.30	**1.99**	**1.69**	**1.29**
174692CF	21226-384221	Johnson Electric	—	12	9-14	0.015	3000	—	0.11"/solder	0.08"	0.69"	0.97 x 1.19	**1.65**	**1.49**	**1.35**
162579CF	TID20E	Operating Tech T&I	—	12	9-14	0.025	2150	—	0.20"/solder	0.12"	0.48"	1.48 x 1.42	**1.55**	**1.29**	**.99**
206949CF	QJT360S14280	Nichibo	52	12	9-30	0.350	4930	44.5	0.11"/solder	0.09"	0.45"	1.09 x 1.30	**1.69**	**1.45**	**1.09**
181964CF	NF203G12	Johnson Electric	—	12	9-14	0.030	5000	—	0.07"/solder	0.08"	0.57"	0.95 x 1.20	**1.55**	**1.29**	**.99**
173681CF	HC610F[3]	Johnson Electric	55	12	9-14	0.840	4920	110.0	0.187"/fast on	0.12"	0.92"	1.40 x 1.80	**1.69**	**1.55**	**1.39**
161082CF	84055	Johnson Electric	—	150	145-152	0.168	6500	305.9	0.187"/fast on	0.16	0.55"	2.48 x 1.51 ~~$1.95~~	**.92**	**.84**	**.76**

[1] **154915CF/154923CF:** Use bushing P/N 162392CF, pg 216 [2] Manufacturer may vary [3] **173681CF:** Eccentric gear

Vibrating Motors

1.3VDC 8,500 RPM Vibrating Motor

- Typical applications: cellular phones, pagers, and toys
- Rated RPM: 8,500 @ 1.3VDC
- Direction of rotation: clockwise
- Operating voltage: 1.3V @ 65mA (typical)
- Lead length: 0.75"
- Size: (motor) 0.16"Dia. x 0.55"L (shaft) 0.15"Dia. x 0.23"L



Part No.	Description	1	10	100
175396CF	Vibrating motor	**$6.49**	**$5.89**	**$5.29**

3VDC 4,500 RPM Vibrating Motor

- Typical applications: beepers, small toys, cellular phones
- Rated RPM: 4,500 or more @ 3VDC
- Direction of rotation: dual
- Operating voltage: 3VDC @ 45mA
- Operating voltage range: 2.5 – 3.8VDC
- Starting current @ operating voltage: 60mA or less
- Size: 0.55"Dia. x 0.13"Thick



Part No.	Description	1	10	100
185228CF	Vibrating motor	**$3.35**	**$2.99**	**$2.69**

Electric Motors and Control Techniques

TAB Publishing

Explains how different types of motors operate, and how electronic control devices can be used to improve efficiency in a wide range of applications. (294 pages, 1994)



• Size: 7.3" x 9.2" • Weight: 1.1 lbs.

Part No.	Description	1	10
137162CF	Electric Motors & Control ...	**$24.95**	**$24.95**

1.3VDC 7,500 RPM Vibrating Motor

Namiki

- Typical applications: cellular phones, pagers and toys
- Rated RPM: 7,500 @ 1.3VDC
- Clock-wise rotation
- 1.1" lead wires
- Operating voltage: 1.3VDC @ 80mA
- Size: (motor) 0.47"L x 0.24"Dia. (shaft) 0.22"L x 0.10"Dia.



Part No.	Description	1	10	100
190078CF	Vibrating motor	**$5.95**	**$5.35**	**$4.79**

1.3VDC 7,000 RPM Vibrating Motor

- Typical applications: cellular phones, pagers, and toys
- Rated RPM: 7,000 @ 1.3VDC
- Lead length: 0.7"
- Stall current: 112mA @ 1.3VDC
- Direction of rotation: clockwise
- Operating voltage: 1.3VDC @ 62mA
- Operating voltage range: 0.7 – 1.6VDC
- Size: (motor) 0.28"Dia. x 0.67"L (shaft) 0.10"Dia. x 0.18"L



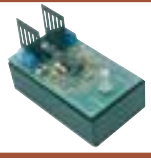
Part No.	Description	1	10	100
175062CF	Vibrating motor	**$4.95**	**$4.49**	**$3.95**

Corporate Customers

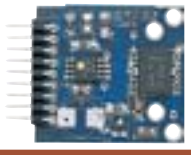


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See page 220 for our selection of Motor Kits.



12 and 24VDC Reversible Gear Head Motors

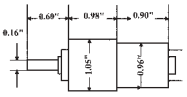
HSIANG NENG

- Solder-type terminal
- High torque construction
- Oil bearing design for long service life
- Insulation resistance: 10MΩ
- Dielectric strength: 300VDC


167038CF

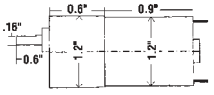

159417CF


155011CF

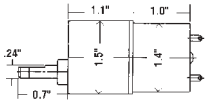


HN27GD Series

GH30GM Series



GH35GM Series



HN27GD Series

Part Number	Product Number	Rated Voltage (VDC)	Operating Range (VDC)	No Load Current (mA)	No Load Speed (rpm)	Started Torque (g-cm)	Gear Ratio	Gear Case Size Dia. x Lgth (in.)	Motor Size Dia. x Lgth (in.)	Shaft Size Dia. x Lgth (in.)	Pricing 1	Pricing 10	Pricing 50
167038CF	GH12-0953Y	12	4.5 – 24	45	14	1200	188:1	1.0 x 0.9	1.1 x 1.0	.16 x .60	**$16.49**	**$14.85**	**$13.39**
167046CF	GH12-1828Y	12	4.5 – 24	95	37	1300	90:1	1.1 x 1.3	1.1 x 0.8	.16 x .60	**21.95**	**19.79**	**17.79**

GH30GM Series

170641CF	GH12-1828Y-10	12	6.0 – 24	45	10	3500	332:1	1.2 x 1.2	1.2 x 0.9	.16 x .70	**$23.95**	**$21.59**	**$19.49**
153437CF	GH12-1045Y	12	3.0 – 12	35	15	800	200:1	0.9 x 1.0	1.1 x 0.6	.16 x .70	**18.95**	**17.09**	**15.35**
159417CF	GH12-1921Y	12	4.5 – 12	150	42	8000	132:1	1.2 x 1.2	1.2 x 0.9	.16 x .70	**21.95**	**19.79**	**17.79**
162190CF	GH12-1324Y225	12	4.5 – 12	65	225	700	30:1	1.0 x 0.9	1.1 x 0.6	.16 x .70	**16.95**	**15.25**	**13.75**

GH35GM Series

155011CF	GH12-1926	12	4.5 – 12	55	2	15000	3000:1	1.3 x 0.9	1.5 x 1.1	.23 x .90	**$21.95**	**$19.79**	**$17.79**
155820CF	GH12-1830Y-P	12	4.5 – 12	50	4.5	13000	1000:1	1.3 x 0.9	1.5 x 1.0	.23 x .90	**21.95**	**19.79**	**17.79**
155838CF	GH12-1641T-L	12	3.0 – 12	65	20	10000	270:1	1.3 x 0.9	1.5 x 0.8	.23 x .90	**23.95**	**21.59**	**19.45**
152910CF	GH12-1926Y	12	4.5 – 12	48	44	11800	100:1	1.3 x 1.0	1.5 x 0.7	.24 x .90	**21.95**	**19.75**	**17.75**
151440CF	GH12-1632TI	12	4.5 – 12	75	69	11000	100:1	1.3 x 0.9	1.5 x 0.7	.23 x .90	**21.95**	**18.55**	**16.69**
155854CF	GH12-1641T-F	12	3.0 – 12	65	87	7000	60:1	1.3 x 0.9	1.4 x 0.9	.23 x .90	**21.95**	**19.79**	**17.79**
155862CF	GH12-1926Y-F	12	4.5 – 12	60	100	5000	60:1	1.3 x 0.9	1.4 x 0.9	.23 x .90	**21.95**	**19.79**	**17.79**
161373CF	GH12-1345T	12	4.5 – 12	69	150	3000	30:1	1.3 x 0.9	1.5 x 0.7	.23 x .90	**23.95**	**21.59**	**19.45**
161381CF	GH12-1634T	12	4.5 – 12	111	200	3600	30:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	**21.95**	**19.79**	**17.79**
164785CF	GH12-1640Y	12	4.5 – 24	45	300	800	10:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	**23.95**	**21.59**	**19.45**
176049CF	GH12-1640Y00	24	12 – 24	140	2	6000	3000:1	1.3 x 0.9	1.5 x 1.1	.23 x .90	**21.95**	**19.79**	**17.79**
176031CF	GH24-1640Y06	24	12 – 24	140	65	2000	90:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	**21.95**	**19.79**	**17.79**
176022CF	GH24-1640Y19	24	12 – 24	140	193	1000	30:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	**21.95**	**19.79**	**17.79**

Solenoids and AC Gear Motor

12VDC Continuous Tubular Push, Pull and Push/Pull Solenoids

- 12VDC nominal voltage continuous
- Life expectancy: 2,000,000 cycles


163803CF


149761CF


145314CF


142463CF

SUN MAGNET

Part No.	Type	Coil Res. (±10%)	Power Consum.	Holding Force (lbs. @ 20°C)	Wires (in.)	Size (ins.) (L x Dia.)	Shaft Dia. (in.)	Wt. (lbs.)	Pricing 1	Pricing 10	Pricing 100
163803CF	Push*	42.8Ω	3.4W	0.75	9.0	2.00 x .60	0.156	0.10	~~$9.95~~ **$8.95**	**$7.89**	**$7.09**
149753CF	Push	36Ω	4.0W	0.75	7.0	1.90 x .50	0.063	0.05	**9.95**	**8.95**	**7.95**
149761CF	Push	20.7Ω	7.0W	1.50	7.0	2.50 x .60	0.098	0.10	**9.95**	**8.95**	**7.95**
145314CF	Push/Pull	89Ω	2.0W	1.12	3.5	1.24 x .73	0.110	0.05	**8.95**	**7.95**	**6.95**
142463CF	Pull	36Ω	4.0W	0.63	2.0	1.63 x .43	0.150	0.04	**5.95**	**5.35**	**4.79**

* Guardian Mfr. # A420-067074-1

Shindengen 24VDC Continuous Tubular Pull Solenoid

- Holding force: 3 lbs.
- Typical coil resistance: 131Ω
- Power: 8 watts
- 2" lead wires
- Size: 3.1"L x 1.0"Dia.
- Weight: 2.8 lbs.

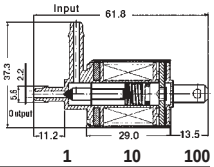


Part No.	Description	1	10	100
128557CF	24VDC solenoid	**$8.49**	**$7.65**	**$6.89**

12VDC Solenoid Valve

- Operating voltage: 12VDC
- Operational temperature: -29˚C to 85˚C
- Current: 350mA
- Air leakage: 1c.c./min. max. 4psi
- 0.250" quick disconnect terminals
- Size: 1.2"L x 0.92"Dia
- Weight: 0.1 lbs.





Part No.	Description	1	10	100
169834CF	Solenoid valve	**$6.95**	**$6.25**	**$5.59**

120VAC Gear Motor

6.0 RPM - 2.9 Watt



- Operating Voltage: 120VAC @ 60Hz
- Torque: >3.6 kg-cm
- Connector: 12" wires
- Screw down tabs for mounting (2.3" diagonal mounting hole space)
- Shaft diameter: 0.27" • Shaft length: 0.65"
- Typical applications: air conditioner turnleaf motor, microwave turnplate motor
- Overall size: 2.0" Dia. x 1.0" Thick

Part No.	Prod. No.	Description	1	10	100
213487CF	50TYZ	Gear motor	**$19.95**	**$17.95**	**$16.25**

24VDC Tubular Pull Solenoid

SUN MAGNET

- Holding force: 4.0 lbs. @ 20˚C
- Typical coil resistance: 60Ω
- 1" stroke
- Power: 10 watts
- 9" lead wires
- Size: 3.0"L x 1.0" Dia. • Weight: 0.4 lbs.



Part No.	Description	1	10	100
215141CF	24VDC pull solenoid	**$9.95**	**$8.95**	**$7.95**

Jameco Special Values!

See the yellow and green highlighted items. Details on page 3.

Call for pricing on quantities over 100 – we carry major manufacturers. **We will special order any IC – 100 Piece Minimum**

EPROM

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
39909CF	2708	24	1k x 8 8kB 450ns (±5V, +12V)	$4.95	$4.25	$3.19
40002CF	2716	24	2k x 8 16kB 450ns (25V)	3.99	3.59	3.19
40011CF	2716-1	24	2k x 8 16kB 350ns (25V)	6.49	5.89	5.39
39706CF	27C16	24	2k x 8 16kB 450ns (25V) CMOS	7.25	6.55	5.99
114876CF	2732B	24	4k x 8 32kB 450ns (12.5V)	4.15	3.75	3.39
33591CF	TMS2532A	24	4k x 8 32kB 450ns (21V)	3.95	3.55	3.19
40096CF	2732	24	4k x 8 32kB 450ns (25V)	6.49	5.49	4.10
40109CF	2732A-20	24	4k x 8 32kB 200ns (21V)	6.49	5.99	5.49
40125CF	2732A-25	24	4k x 8 32kB 250ns (21V)	4.99	4.49	3.99
40133CF	2732A-45	24	4k x 8 32kB 450ns (21V) ~~$4.49~~	3.99	3.69	3.29
39765CF	27C32	24	4k x 8 32kB 450ns (25V) CMOS	5.49	4.15	2.89
40192CF	2764-20	28	8k x 8 64kB 200ns (21V)	5.25	4.75	4.25
40205CF	2764-25	28	8k x 8 64kB 250ns (21V)	5.25	4.75	4.25
40230CF	2764A-20	28	8k x 8 64kB 200ns (12.5V)	4.49	4.05	3.65
40248CF	2764A-25	28	8k x 8 64kB 250ns (12.5V)	3.49	3.15	2.85
105304CF	27C64-12	28	8k x 8 64kB 120ns (12.5V) CMOS	6.49	5.99	5.49
39829CF	27C64-15	28	8k x 8 64kB 150ns (12.5V) CMOS	5.49	4.99	4.49
74608CF	27C64-20	28	8k x 8 64kB 200ns (12.5V) CMOS	4.69	4.29	3.79
39845CF	27C64-25	28	8k x 8 64kB 250ns (12.5V) CMOS	4.49	4.09	3.79
39933CF	27128-25	28	16k x 8 128kB 250ns (21V)	5.95	5.09	3.85
39950CF	27128A-15	28	16k x 8 128kB 150ns (12.5V)	4.49	3.95	3.55
39968CF	27128A-20	28	16k x 8 128kB 200ns (12.5V)	4.69	4.19	3.79
39984CF	27128A-25	28	16k x 8 128kB 250ns (12.5V)	4.49	4.05	3.69
87935CF	27C128-12	28	16k x 8 128kB 120ns (12.5V) CMOS	4.49	3.99	3.59
39677CF	27C128-15	28	16k x 8 128kB 150ns (12.5V) CMOS	4.29	3.85	3.45
101101CF	27C128-20	28	16k x 8 128kB 200ns (12.5V) CMOS	3.99	3.69	3.29
39685CF	27C128-25	28	16k x 8 128kB 250ns (12.5V) CMOS	3.99	3.59	3.25
40037CF	27256-15	28	32k x 8 256kB 150ns (12.5V) ~~$5.49~~	3.25	3.09	2.75
40045CF	27256-20	28	32k x 8 256kB 200ns (12.5V) ~~$4.49~~	3.75	3.35	3.05
40061CF	27256-25	28	32k x 8 256kB 250ns (12.5V) ~~$3.49~~	3.15	2.95	2.65
140476CF	27C256-70	28	32k x 8 256kB 70ns (12.5V) CMOS ~~$5.95~~	3.59	3.39	3.09
112740CF	27C256-10	28	32k x 8 256kB 100ns (12.5V) CMOS ~~$5.75~~	3.35	3.15	2.85
65904CF	27C256-12	28	32k x 8 256kB 120ns (12.5V) CMOS ~~$5.25~~	3.25	3.15	2.79
39714CF	27C256-15	28	32k x 8 256kB 150ns (12.5V) CMOS ~~$4.95~~	3.25	3.09	2.75
39722CF	27C256-20	28	32k x 8 256kB 200ns (12.5V) CMOS ~~$4.69~~	3.15	3.05	2.75
39731CF	27C256-25	28	32k x 8 256kB 250ns (12.5V) CMOS ~~$4.25~~	3.15	2.95	2.65
40150CF	27512-20	28	64k x 8 512kB 200ns (12.5V) ~~$3.99~~	2.75	2.45	2.25
40168CF	27512-25	28	64k x 8 512kB 250ns (12.5V)	3.79	3.45	3.15
203617CF	27C512-45	28	64k x 8 512kB 45ns (12.5V) CMOS	3.99	3.68	3.37
203625CF	27C512-70	28	64k x 8 512kB 70ns (12.5V) CMOS ~~$3.95~~	3.69	3.49	3.15
175206CF	27C512-90	28	64k x 8 512kB 90ns (12.5V) CMOS ~~$7.95~~	3.45	3.25	2.95
203730CF	27C512-10 PLCC	32	64k x 8 512kB 100ns (12.5V) CMOS	2.25	2.10	1.89
131959CF	27C512-10	28	64k x 8 512kB 100ns (12.5V) CMOS ~~$5.95~~	3.39	3.15	2.85
39773CF	27C512-12	28	64k x 8 512kB 120ns (12.5V) CMOS ~~$5.75~~	3.35	3.15	2.79
203692CF	27C512-12 OTP	28	64k x 8 512kB 120ns (12.5V) CMOS	2.25	1.89	1.79
39781CF	27C512-15	28	64k x 8 512kB 150ns (12.5V) CMOS ~~$5.49~~	3.25	3.05	2.75
39790CF	27C512-20	28	64k x 8 512kB 200ns (12.5V) CMOS ~~$4.95~~	3.15	2.95	2.65
39802CF	27C512-25	28	64k x 8 512kB 250ns (12.5V) CMOS ~~$5.25~~	4.75	4.39	3.95
203633CF	27C1024-80	40	64k x 16 1024kB 80ns (12.5V) CMOS ~~$6.65~~	4.99	4.49	3.99
203641CF	27C1024-12	40	64k x 16 1024kB 120ns (12.5V) CMOS	6.05	5.65	5.15
118148CF	27C1024-15	40	64k x 16 1024kB 150ns (12.5V) CMOS	5.95	5.55	4.99
137701CF	27C010-45	32	128k x 8 1024kB 45ns (12.5V) CMOS ~~$7.79~~	6.09	5.49	4.99
146149CF	27C010-70	32	128k x 8 1024kB 70ns (12.5V) CMOS ~~$6.95~~	5.55	5.15	4.69
137699CF	27C010-80	32	128k x 8 1024kB 80ns (12.5V) CMOS ~~$5.75~~	5.12	4.61	4.09
203705CF	27C010-10 OTP	32	128k x 8 1024kB 100ns (12.5V) CMOS	2.55	2.35	2.15
203748CF	27C010-10 PLCC	32	128k x 8 1024kB 100ns (12.5V) CMOS	2.55	2.35	2.15
79231CF	27C010-10	32	128k x 8 1024kB 100ns (12.5V) CMOS ~~$5.49~~	4.09	3.58	3.17
74624CF	27C010-12	32	128k x 8 1024kB 120ns (12.5V) CMOS ~~$5.25~~	3.89	3.68	3.38
39651CF	27C010-15	32	128k x 8 1024kB 150ns (12.5V) CMOS ~~$4.95~~	3.89	3.68	3.38
39669CF	27C010-20	32	128k x 8 1024kB 200ns (12.5V) CMOS ~~$4.75~~	3.89	3.68	3.38
203650CF	27C020-80	32	256k x 8 2048kB 80ns (12.5V) CMOS ~~$7.25~~	7.17	6.41	5.80
203713CF	27C020-10 OTP	32	256k x 8 2048kB 100ns (12.5V) CMOS	3.99	3.59	3.25
203756CF	27C020-10 PLCC	32	256k x 8 2048kB 100ns (12.5V) CMOS	3.79	3.45	3.09
156267CF	27C020-10	32	256k x 8 2048kB 100ns (12.5V) CMOS ~~$7.99~~	5.63	5.22	4.71
78852CF	27C020-12	32	256k x 8 2048kB 120ns (12.5V) CMOS ~~$7.29~~	5.63	5.22	4.71
65699CF	27C020-15	32	256k x 8 2048kB 150ns (12.5V) CMOS	5.63	5.22	4.71
65681CF	27C020-20	32	256k x 8 2048kB 200ns (12.5V) CMOS	5.63	5.22	4.71

EPROM (Continued)

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
127933CF	27C4096-12	40	256k x 16 4096kB 120ns (12.5V) CMOS	$9.22	$8.60	$7.85
203676CF	27C040-80	32	512k x 8 4096kB 80ns (12.5V) CMOS	12.29	11.27	10.24
203764CF	27C040-10 PLCC	32	512k x 8 4096kB 100ns (12.5V) CMOS	5.49	4.95	4.45
111780CF	27C040-10	32	512k x 8 4096kB 100ns (12.5V) CMOS	6.92	6.41	5.90
203721CF	27C040-12 OTP	32	512k x 8 4096kB 120ns (12.5V) CMOS	5.99	5.39	4.85
102293CF	27C040-12	32	512k x 8 4096kB 120ns (12.5V) CMOS ~~$8.49~~	6.92	6.41	5.90
85462CF	27C040-15	32	512k x 8 4096kB 150ns (12.5V) CMOS ~~$7.95~~	6.92	6.41	5.90
203668CF	27C040-45	32	512k x 8 4096kB 45ns (12.5V) CMOS	12.99	11.99	10.99
203684CF	27C080-90	32	1M x 8 8192kB 90ns (12.5V) CMOS ~~$12.95~~	12.91	11.99	10.96
156275CF	27C080-10	32	1M x 8 8192kB 100ns (12.5V) CMOS ~~$16.95~~	12.91	11.99	10.96
140003CF	27C080-12	32	1M x 8 8192kB 120ns (12.5V) CMOS ~~$17.49~~	12.91	11.99	10.96
156283CF	27C160-10	42	2M x 8 16384kB 100ns (12.5V) CMOS ~~$29.95~~	20.45	18.95	17.31

See EPROM programmers and erasers on pages 115-117 & 233

EPROM Accessories

Part No.	Cross Ref.	Description	1	10
206922CF	EP1D	1.1" x 0.46" EPROM & DIP window labels UV opaque, accepts ink or pencil (168 labels per pack)	$6.95	$5.95
13864CF	CF2	Conductive foam (12" x 24" x .25") hard black	7.95	6.95
66042CF	DE1	UVP portable EPROM eraser, pg 116	64.95	58.95
15712CF	DE4	8-chip UV-EPROM eraser, pg 116 ~~$129.95~~	109.95	104.95

EEPROM

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
108839CF	24C02P	8	256 x 8 2048-bit serial (CMOS)	$.79	$.69	$.62
108847CF	24C04P	8	512 x 8 4096-bit serial (CMOS)	.89	.79	.69
200547CF	24C08-10	8	1k x 8 1024-bit serial (CMOS)	.99	.89	.80
200555CF	24C16-10	8	2k x 8 16k serial (CMOS)	1.19	1.09	.95
200563CF	24C32-10	8	4k x 8 32k serial (CMOS)	1.75	1.69	1.45
200627CF	24C44	8	16 x 16 256-bit serial (CMOS)	1.99	1.49	1.29
200619CF	24C65	8	8k x 8 64k serial (CMOS)	1.89	1.69	1.49
200571CF	24C128-10	8	16k x 8 128k serial (CMOS)	3.75	3.10	2.79
200580CF	24C256-10	8	32k x 8 256k serial (CMOS)	3.59	2.35	2.15
74691CF	28C16A-25	24	2k x 8 16k 250ns (5V) CMOS ~~$4.95~~	3.99	3.69	3.39
40416CF	2817A-25	28	2k x 8 16k 250ns 5V read/write	7.95	7.15	6.49
74827CF	28C64A-25	28	8k x 8 64k 250ns (5V) CMOS	4.49	4.05	3.65
40475CF	2865A	28	8k x 8 64k 250ns 5V read/write	4.95	4.49	4.05
74843CF	28C256-15	28	32k x 8 256k 150ns CMOS	8.95	6.95	6.25
74878CF	28C256-25	28	32k x 8 256k 250ns CMOS	8.75	6.85	6.05
102058CF	93C46	8	64 x 16 1024-bit serial (5V)	.59	.49	.45
108855CF	93C56	8	128 x 16 2048-bit serial (5V)	.69	.59	.49
200598CF	93C66	8	256 x 16 4096-bit serial (5V)	.69	.62	.55
200601CF	93C86	8	1k x 16 16k serial (5V)	1.39	1.25	1.15

PROM

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
48531CF	74S188	16	32 x 8 Open collector (27S18)	$4.95	$4.25	$3.19
48696CF	74S287	16	256 x 4 Tri-state (TBP24S10N)	6.95	6.25	5.65
48717CF	74S288	16	32 x 8 Tri-state (27S19/TBP18S030N)	2.99	2.55	2.42
48910CF	74S571	16	512 x 4 Tri-state (27S13)	5.99	5.69	5.39
48928CF	74S573	18	1024 x 4 Tri-state (27S33)	3.05	2.73	2.46
27844CF	N82S23	16	32 x 8 256-bit PROM (OC) (27S18)	5.95	5.39	4.85
27748CF	N82S100	28	16 x 48 x 8 Field-prog. logic array, tri-state	14.95	13.49	12.15
27764CF	N82S123	16	32 x 8 256-bit PROM tri-state (27S19)	5.95	5.35	4.85
27772CF	N82S126	16	256 x 4 1024-bit PROM (OC) (27S20)	10.95	10.39	9.85
27781CF	N82S129	16	256 x 4 1024-bit PROM tri-state (27S21)	7.95	6.95	6.25
27799CF	N82S131	16	512 x 4 2048-bit PROM tri-state (27S13)	7.99	6.99	5.99
27801CF	N82S137	18	1024 x 4 4096-bit PROM tri-state (27S33)	4.95	4.25	3.19
27810CF	N82S181	24	1024 x 8 8192-bit bipolar PROM tri-state	6.95	5.95	5.39
27828CF	N82S185	18	2048 x 4 8192-bit PROM tri-state	4.99	3.75	2.65
27836CF	N82S191	24	2048 x 8 16,384-bit PROM tri-state	6.95	6.25	5.65

Flash Memory

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	50
74771CF	28F010-15	32	128k x 8 150ns (12V) CMOS	$6.95	$6.25	$5.65
74835CF	28F020-15	32	256k x 8 150ns (12V) CMOS	7.95	7.15	6.45

Call for pricing on quantities over 100 – we carry major manufacturers. We will special order any IC – 100 Piece Minimum

Dynamic and Video RAM

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
41339CF	4116-15	16	16k x 1 150ns (MM5290J-1R)	$.99	$.89	$.80
191370CF	HM4816-4	16	16k x 1 120ns ~~$.89~~	.59	.55	.49
41662CF	4164-150	16	64k x 1 150ns (MCM6665-15)	.59	.53	.48
41398CF	41256-120	16	256k x 1 120ns (MB81256-12)	.73	.65	.59
41427CF	41256-150	16	256k x 1 150ns (P21256-15)	.69	.59	.49
41574CF	41464-10	18	64k x 4 100ns (HY53C464S-10)	1.69	1.65	1.59
42219CF	511000P-10	18	1M x 1 100ns (M5M4C1000-10)	2.25	1.99	1.79
93374CF	514256P-70	20	256k x 4 70ns (TC514256P-70)	2.79	2.49	2.19
42315CF	514256P-80	20	256k x 4 80ns (UPD424256-80)	2.49	2.25	2.05
128688CF	HM514260	SOJ	256k x 16 70ns	3.39	2.99	2.69

Static RAM

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
114260CF	DS1220Y-150	24	— 16k nonvol., 4.25V WP	$11.95	$10.95	$9.85
114278CF	DS1225AB-150	28	— 64k nonvol., 4.62V WP	17.29	14.49	9.89
114286CF	DS1225AD-150	28	— 64k nonvol., 4.37V WP	11.95	10.95	9.85
114307CF	DS1225Y-200	28	— 64k nonvol., 4.25V WP	15.95	14.49	11.65
177113CF	DS1230Y-100	28	— 256k nonvol., 4.37V WP	21.95	18.69	13.99
114323CF	DS1230Y-150	28	— 256k nonvol., 4.37V WP	19.95	18.95	15.15
38738CF	2016-12	24	2k x 8 120ns (AM9128-12)	1.49	1.29	1.22
38746CF	2016-20	24	2k x 8 200ns (MB8128-20)	1.39	1.09	.78
38931CF	2111-1	18	256 x 4 500ns (AM9111APC)	1.95	1.75	1.59
38957CF	2114N	18	1k x 4 450ns (9114BPC)	2.25	1.99	1.79
38973CF	2114N-2	18	1k x 4 200ns (9114EPC) (U214D20)	2.49	2.25	2.05
38981CF	2114N-2L	18	1k x 4 200ns low power	2.49	2.25	2.05
25911CF	MK48Z02B-15	24	2k x 8 150ns (16k) zero-power RAM	9.99	8.99	7.99
42198CF	5101	22	256 x 4 450ns (CMOS)	7.99	7.19	6.49
42788CF	6116P-1	24	2k x 8 100ns (16kB) CMOS	1.69	1.55	1.39
42796CF	6116P-2	24	2k x 8 120ns (16kB) CMOS	1.59	1.35	1.05
42809CF	6116P-3	24	2k x 8 150ns (16kB) CMOS	1.49	1.29	1.15
42737CF	6116LP-1	24	2k x 8 100ns (16kB) LP CMOS	2.39	1.79	1.35
42753CF	6116LP-3	24	2k x 8 150ns (16kB) LP CMOS	1.95	1.75	1.59
42921CF	6264P-10	28	8k x 8 100ns (64kB) CMOS ~~$3.45~~	2.59	2.29	1.99
42930CF	6264P-12	28	8k x 8 120ns (64kB) CMOS	2.65	2.39	2.15
85121CF	6264LP-70	28	8k x 8 70ns (64kB) LP CMOS	3.39	2.99	2.69
42884CF	6264LP-10	28	8k x 8 100ns (64kB) LP CMOS	2.75	2.49	2.25
42892CF	6264LP-12	28	8k x 8 120ns (64kB) LP CMOS	2.79	2.49	2.19
43238CF	6514	18	1k x 4 350ns CMOS (M58981P)	2.95	2.75	2.49
41970CF	43256-10L	28	32k x 8 100ns low power (NEC)	5.49	4.95	4.45
41988CF	43256-12L	28	32k x 8 120ns low power (NEC)	4.95	4.49	4.09
82472CF	62256LP-70	28	32k x 8 70ns low power CMOS	5.49	4.99	4.49
42833CF	62256LP-10	28	32k x 8 100ns low power CMOS	4.35	3.95	3.55
42850CF	62256LP-12	28	32k x 8 120ns low power CMOS ~~$4.29~~	3.85	3.49	3.15
75037CF	ATT7C199P-15	28	32k x 8 15ns high speed CMOS (.3"W)	3.39	2.99	2.69
131810CF	628128LP-70	32	128k x 8 70ns low power CMOS	8.95	7.79	6.99
103982CF	628128LP-85	32	128k x 8 85ns low power CMOS	8.49	7.49	6.75
157358CF	628512LP-70	32	512k x 8 70ns low power CMOS	19.99	17.99	16.19

ISD Voice Chips

Dual-In-Line

Single-Chip Voice Record/Playback Devices

10 to 240 Second Durations (28-pin DIP)



107334CF

- Easy-to-use single-chip voice recording and playback
- Manual switch or microprocessor controllable
- Directly cascadable for longer durations
- Fully addressable to handle multiple messages
- Zero-power message storage – eliminates battery backup circuits
- Single voltage operation: +5V (4.5V to 5.5V operating range)
- Automatic power-down (push-button mode)
- Playback can be edge or level-activated
- 1 µA standby current (typical)
- 100-year message retention (typical)
- On-chip clock source
- 100k record cycles (typical)
- On-chip automatic gain control (AGC)

Part No.	Product No.	Description	1	10	50
141671CF	ISD1110P	Voice record/playback (10 sec.)	$4.29	$3.99	$3.79
107334CF	ISD1420P	Voice record/playback (20 sec.)	5.39	5.09	4.89
120643CF	ISD2560	Voice record/playback (60 sec.)	9.19	8.59	7.79
120660CF	ISD2590	Voice record/playback (90 sec.)	9.29	8.69	7.89
141655CF	ISD25120P	Voice record/playback (120 sec.)	9.39	8.79	7.99

CPUs/MPUs

SALE

Part No.	Description	MHz	Socket	1	10	25
188912CF	Pentium® III processor	733	Socket 370	$112.95	$101.95	$90.95
183118CF	Pentium® III processor	600	Slot 1	159.95	153.79	147.49
183100CF	Pentium® II processor	400	Slot 1	124.99	109.99	99.99
151651CF	Pentium® II processor	300	Slot 1	109.99	99.99	89.99
190060CF	Pentium® II processor w/ heat sink	233	Slot 1	89.95	79.95	72.95
150501CF	Pentium MMX® processor	233	376/PGA	69.95	62.95	54.95
140054CF	Pentium MMX® processor	200	376/PGA	49.95	37.45	26.25
196912CF	Pentium MMX® processor	166	296/PGA	29.95	29.95	29.95
189296CF	Pentium® processor	200	296/PGA	69.95	52.49	36.75
130841CF	Pentium® processor	166	296/PGA	54.99	46.75	35.09
130833CF	Pentium® processor	133	296/PGA	29.95	26.95	24.25
189253CF	Athlon®, A0900AMT3B	900	Slot A	69.95	69.95	69.95
192751CF	Athlon®, A0750MPR24B	750	Slot A	64.95	64.95	64.95
189270CF	486DX4 (Intel), FC80486DX4	75	208/SQFP	9.69	8.85	8.15
118421CF	486 speed doubler (Intel), 80486DX2	66	168/PGA	19.95	17.95	16.15

Math Coprocessor

Part No.	Cross Ref.	Pins	Description	1	10	25
76531CF	80387-25SX	68PLCC	25MHz math coprocessors	$27.95	$24.95	$22.45

V20 Chip

Dual-In-Line

Part No.	Cross Ref.	Pins	MHz	Description	1	10	100
34358CF	UPD70108-8	40	8	V20 chip (replaces the 8088-2)	$10.99	$9.99	$8.99

Z80 Series

Dual-In-Line

Part No.	Cross Ref.	Pins	MHz	Description	1	10	100
35561CF	Z80	40	2.5	CPU (MK3880N/780C)	$1.39	$1.19	$1.09
35596CF	Z80A	40	4	CPU (MK3880N-4/780C-1)	1.99	1.79	1.59
35609CF	Z80A-CTC	28	4	Counter timer circuit (MK3882-4)	2.19	1.99	1.79
35625CF	Z80A-DART	40	4	Dual asynchronous receiver/transmitter	3.49	3.19	2.89
35641CF	Z80A-PIO	40	4	Parallel I/O interf. contr. (MK3881-4)	1.49	1.29	1.15
35668CF	Z80A-SIO/0	40	4	Serial I/O (TxCB & RxCB bond.) MK3884-4	2.19	1.95	1.75
35705CF	Z80B	40	6	CPU (MK3880N-6)	2.59	2.35	2.09
35781CF	Z84C00-4	40	4	CPU (Z84C0004PEC) CMOS	4.99	4.49	3.99
35799CF	Z8530	40	2	Serial communications controller	2.49	1.75	1.25
185332CF	Z8681	40	2	ROMless MCU ~~$1.25~~	.55	.50	.45

UARTs

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
43158CF	6402	40	CMOS/LSI UART (TR1863)	$4.95	$4.49	$4.05
27570CF	NS16C450N	40	CMOS ACE (IBM-AT compat.) (82C450)	5.95	5.39	4.85
27596CF	NS16550AN	40	Univ. asynch. rcvr./trans. w/ FIFO (PC16550DN)	5.95	5.09	3.79

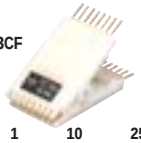
6500 Series/Commodore

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
43191CF	6502	40	MPU with internal clock (1MHz)	$7.95	$6.95	$6.25
43166CF	65C02	40	MPU with internal clock (CMOS)	6.95	5.25	3.65
43254CF	6522	40	VIA (versatile interface adapter) 1MHz	2.39	2.15	1.94
43297CF	6532	40	128 x 8 RAM, I/O timer array	7.95	6.99	6.49
43318CF	6551	28	ACIA (asynch. comm. interface adptr)	3.95	3.49	3.15

IC Test Clip Series

- For temporary connections to DIP package components
- Heavy-duty spring loaded hinge provides positive contact
- 20 AWG insulated gold contacts
- Color: white



22103CF

Part No.	Cross Ref.	Description	1	10	25
22103CF	JTC16	16-pin (for 8, 14 and 16-pin ICs)	$6.95	$6.25	$5.59
22120CF	JTC20	20-pin (for 18 and 20-pin ICs)	8.95	6.50	5.35
22162CF	JTC28	28-pin	10.95	9.95	8.95
22189CF	JTC40	40-pin	11.95	11.35	10.75



See page 181 for CPU Heat Sinks and Fans



Call for pricing on quantities over 100 – we carry major manufacturers. We will special order any IC – 100 Piece Minimum

6800/68000 Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
43481CF	6800	40	8-bit MCU	$6.95	$5.25	$3.65
43502CF	6802	40	8-bit MPU with clock and RAM (1MHz)	8.69	7.82	6.99
43529CF	6803	40	8-bit MCU with 128k RAM	7.79	6.99	6.29
43537CF	MC6808	40	8-bit MPU with clock and 128k RAM	9.95	6.75	6.69
43545CF	6809E	40	MPU with external clock (1MHz)	3.95	3.59	3.25
43561CF	6810	24	128x8 static RAM (1MHz)	1.49	1.35	1.19
43596CF	6821	40	Peripheral interface adapter (1MHz)	3.95	3.59	3.25
43414CF	68B21	40	Peripheral interface adapter (2MHz)	4.95	4.49	4.05
43617CF	6840	28	Programmable timer (1MHz)	2.49	2.25	1.99
43633CF	6850	24	Asynch. comm. int. adapter (ACIA)	2.39	2.09	1.89
25304CF	MC68000L8	64	MPU 16-bit (8MHz)	8.95	7.95	7.25
25291CF	MC68000L10	64	MPU 16-bit (10MHz)	14.95	11.20	7.85
25355CF	MC68701	40	8-bit EPROM MPU w/ 128B RAM & I/O	15.95	13.95	12.55
25363CF	MC68705P3S	28	8-bit EPROM MPU w/ 112B RAM & I/O	24.95	22.95	20.65
25371CF	MC68705U3S	40	8-bit EPROM MPU w/ 112B RAM & I/O	29.95	25.49	19.09
191863CF	MC68HC11E1CP2	48	8-bit micro cntl. w/ A/D conv. (512B RAM)	15.95	13.95	12.55
108919CF	MC68HC705C8P	40	8-bit HCMOS MCU, 8k OTPROM, 24 I/O lines	9.95	8.95	8.05
132484CF	MC68HC705C8S	40	8-bit HCMOS MCU, 8k bytes, EPROM	38.95	34.95	31.55
108927CF	MC68HC705K1P	16	8-bit HCMOS MCU, 504B, OTPROM, 10 I/O tmr	7.95	7.15	6.45

8000 Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
51844CF	8031	40	CPU with 128 x 8 RAM and I/O	$3.29	$2.99	$2.69
51676CF	80C31	40	CPU with 128 x 8 RAM and I/O (CMOS)	3.39	2.89	2.19
102197CF	8032	40	8-bit MCU 256 x 8 RAM	3.95	3.59	3.25
108804CF	80C32-1	40	8-bit MCU 256 x 8 RAM (CMOS)	4.49	3.99	3.59
51861CF	8035	40	MPU 8-bit	3.95	3.59	3.25
51959CF	8039	40	CPU single chip 8-bit (128 bytes RAM)	4.49	3.99	3.59
51692CF	80C39	40	CPU single chip 8-bit (128 bytes RAM) CMOS	3.99	3.59	3.25
51983CF	8049*	40	CPU single chip 8-bit (can be used as 8039*)	1.95	1.75	1.59
51991CF	8051AP**	40	MCU w/128x8 RAM (book 161402CF, pg 224)	5.49	4.99	4.49
52003CF	8052AH**	40	CPU 8-bit 256 bytes RAM, timer/counter & I/O	7.99	7.19	6.49
125647CF	80C52BASIC	40	CPU 8-bit CMOS with basic interpreter	29.99	24.99	19.99
52046CF	8080A	40	CPU 8-bit N-channel (1MHz)	4.49	3.95	3.59
52062CF	8085A	40	CPU 8-bit N-channel (3MHz)	4.99	4.25	3.19
52071CF	8085A-2	40	CPU 8-bit N-channel (5MHz)	5.49	4.99	4.49
51705CF	80C85	40	CPU 8-bit N-channel (3MHz)(CMOS)	6.95	5.95	4.45
52100CF	8086-2	40	CPU 16-bit (8MHz)	1.95	1.75	1.59
52142CF	8088	40	CPU 16-bit (8-bit data bus) 5MHz	2.49	2.25	1.99
52169CF	8088-2	40	CPU 16-bit (8-bit data bus) 8MHz	5.95	5.39	4.85
52290CF	8155	40	HMOS RAM I/O port/timer (3MHz)	4.49	3.39	2.39
52302CF	8155-2	40	HMOS RAM I/O port/timer (5MHz)	5.95	5.39	4.85
52193CF	81C55	40	256x8 RAM I/O port/timer (CMOS) 3MHz	3.95	3.59	3.19
52329CF	8156	40	RAM with I/O port and timer	9.95	8.49	6.35
52468CF	8212	24	8-bit input/output (74S412)	6.49	5.99	5.49
52484CF	8216	16	Bi-directional bus driver (non-invert.)	3.95	3.39	2.55
52492CF	8224	16	Clock generator/driver	2.95	2.49	2.25
52513CF	8228	28	System contr./bus driver (74S428)	2.95	2.55	1.89
52581CF	8243	24	I/O expander for 48 series	5.49	4.99	4.49
52610CF	8250A	40	Asynchronous comm. element	4.95	4.25	3.19
52644CF	8251	28	Prog. comm. I/O (USART)	2.99	2.69	2.39
52652CF	8251A	28	Prog. comm. interface (USART)	3.99	3.69	3.39
52370CF	82C51A	28	Prog. comm. interface (USART) CMOS	4.49	3.99	3.49
52679CF	8253	24	Prog. interval timer	3.19	2.89	2.59
52687CF	8253-5	24	Prog. interval timer (2MHz)	4.99	4.49	3.99
52388CF	82C53-5	24	Prog. interval timer (CMOS) 2MHz	4.95	4.25	3.19
52708CF	8254	24	Prog. interval timer (UPD71054)	4.49	3.99	3.59
52716CF	8254-2	24	Prog. interval timer (10MHz)	7.35	6.65	5.95
52396CF	82C54	24	Prog. interval timer (CMOS)	3.95	3.39	2.55
52409CF	82C54-2	24	Prog. interval timer (CMOS) 10MHz	4.49	3.85	2.89
52724CF	8255	40	Prog. peripheral I/O (PPI) 71055 (2MHz)	4.49	3.99	3.49
52732CF	8255A-5	40	Prog. peripheral I/O (PPI) 5MHz	4.89	4.39	2.89
52417CF	82C55A	40	Prog. peripheral I/O (PPI) CMOS	4.99	4.49	3.99
52425CF	82C55A-5	40	Prog. peripheral I/O (PPI) CMOS (5MHz)	4.49	3.99	3.49
52759CF	8256	40	Multif. universal asynch. rec./trans.	19.99	17.99	16.19

*8049 (ROM not available for use) Tie pin 7 high to bypass the internal ROM to convert 8049 to 8039

**Tie pin 31 low to bypass the internal ROM

8000 Series (Continued)

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
52775CF	8259	28	Prog. interrupt controller (UPD71059)	$1.75	$1.55	$1.45
52783CF	8259-5	28	Prog. interrupt controller (8259A-2)	2.49	2.19	1.99
52821CF	8275	40	Prog. CRT controller	12.95	11.05	8.29
52839CF	8279	40	Prog. keyboard/display interface	12.99	11.99	10.99
52847CF	8279-5	40	Prog. keyboard/display interface (5MHz)	12.95	11.69	10.49
52855CF	8282	20	Octal latch (UPD71082)	6.49	5.85	5.29
52871CF	8284A	18	Clock gen. and driver (UPD71084)	4.49	3.99	3.59
52898CF	8286	20	Octal bus transceiver (UPD71086)	3.95	3.59	3.25
52901CF	8287	20	Octal bus transceiver (inverted)	10.99	9.99	8.99
52919CF	8288	20	Bus controller (UPD71088) 82C88-2	1.95	1.65	1.25
53006CF	8741	40	8-bit univ. peripheral interface (EPROM)	7.99	7.19	6.49
53014CF	8742	40	8-bit univ. peripheral interface	9.95	8.49	6.35
53022CF	8748	40	CPU 8-bit, EPROM, RAM and I/O (21V)	13.95	11.89	8.89
53031CF	8748H	40	CPU 8-bit, EPROM, RAM & I/O HMOS (21V)	15.95	14.49	12.99
53057CF	8749H	40	MPU 8-bit (EPROM version 8049)	22.99	19.99	17.95
53073CF	8751	40	CPU w/ 4kx8 EPROM & 128x8 RAM (3.5-8MHz)	19.99	17.99	16.19
53081CF	8751H	40	CPU w/ 4kx8 EPROM & 128x8 RAM (1.2-12MHz)	28.49	24.25	18.19
52978CF	87C51	40	CPU w/ 4kx8 EPROM & 128x8 RAM(3.5-12MHz)	21.99	18.69	13.99
196120CF	P87C51	40	CPU w/ 4kx8 EPROM & 128x8 RAM(3.5-12MHz)OTP	12.95	11.95	10.75
53090CF	8755	40	16k EPROM with I/O	8.95	8.09	7.29

MICROCHIP CMOS PIC Microcontrollers

Dual-In-Line

Part No.	Product No.	Pins	Conf.	Speed (MHz)	EPROM Bits	RAM Bytes	I/O Lines	1	10	100
145040CF	PIC12C508-04/P	8	OTP	4	512 x 12	25	5	$1.75	$1.49	$1.25
145058CF	PIC12C509/JW	8	EPROM	4	1k x 12	41	5	13.95	12.59	11.59
144258CF	PIC12C509-04/P	8	OTP	4	1k x 12	41	5	1.95	1.55	1.29
200475CF	PIC12CE518-04/P	8	OTP	4	512 x 12	25	6	1.69	1.55	1.39
193455CF	PIC12C671-04/P	8	OTP	4	1k x 14	128	6	2.49	2.25	2.05
193463CF	PIC12C672-04/P	8	OTP	4	2k x 14	128	6	2.89	2.65	2.45
223790CF	PIC12F629-I/P	8	Flash	20	1k x 14	64	6	1.89	1.59	1.40
223781CF	PIC12F675-I/P	8	Flash	20	1k x 14	64	6	2.35	1.99	1.79
200459CF	PIC16C505-04/P	14	OTP	20	1k x 12	72	12	1.95	1.75	1.65
128338CF	PIC16C54A-04/P	18	OTP	4	512 x 12	25	12	3.29	2.69	2.49
200416CF	PIC16C55A-04/P	28	OTP	4	512 x 12	24	20	2.69	2.49	2.29
134172CF	PIC16C56-RC/P	18	OTP	20	1k x 12	25	12	3.75	3.49	3.25
213495CF	PIC16C57C/JW	28	EPROM	40	2k x 12	72	20	13.95	12.95	11.95
193341CF	PIC16C57C-04/P	28	OTP	4	2k x 12	72	20	3.19	2.89	2.69
193383CF	PIC16C622A-04/P	18	OTP	4	2k x 14	128	13	3.09	2.78	2.50
193439CF	PIC16F627-20/P	18	Flash	20	1k x 14	224	16	3.39	3.05	2.74
193447CF	PIC16F628-20/P	18	Flash	20	2k x 14	224	16	3.49	3.15	2.89
223749CF	PIC16F630-I/P	14	Flash	20	1k x 14	64	12	2.19	1.89	1.65
223757CF	PIC16F676-I/P	14	Flash	20	1k x 14	64	12	2.55	2.19	1.90
193324CF	PIC16C63A-20/SP	28	OTP	20	4k x 14	192	22	5.39	4.99	4.79
193359CF	PIC16C711-04/P	18	OTP	4	1k x 14	68	13	3.59	2.19	1.99
200432CF	PIC16C72A-04/P	28	OTP	4	2k x 14	128	22	4.79	4.35	3.95
193391CF	PIC16F73-I/SP	28	Flash	20	4k x 13	192	5	4.99	4.72	4.49
145091CF	PIC16C74A/JW	40	EPROM	20	14k x 14	192	33	19.95	18.99	17.99
193404CF	PIC16F74-I/P	40	Flash	20	4k x 14	192	8	6.49	5.84	5.25
193412CF	PIC16F76-I/P	28	Flash	20	8k x 14	368	5	7.29	6.89	6.49
193421CF	PIC16F77-I/P	40	Flash	20	8k x 14	368	8	8.19	7.37	6.63
223765CF	PIC16F818-I/P	18	Flash	20	1k x 14	128	16	3.24	2.79	2.45
223773CF	PIC16F819-I/P	18	Flash	20	2k x 14	256	16	3.69	3.15	2.75
145111CF	PIC16F84-04/P	18	Flash	4	1k x 14	68	13	5.95	5.35	4.75
145120CF	PIC16F84-10/P	18	Flash	10	1k x 14	68	13	6.85	6.51	6.19
193332CF	PIC16F84A-20/P	18	Flash	20	1k x 14	68	13	5.95	5.35	5.09
193367CF	PIC16F876-20/SP	28	Flash	20	256 x 8	368	22	8.39	7.59	7.15
176882CF	PIC16F877-20/P	40	Flash	20	256 x 8	368	33	9.49	8.49	7.49
200504CF	PIC18C252-I/P	28	OTP	40	32k x 16	1536	23	7.99	7.59	7.19
200512CF	PIC18C452-I/P	40	OTP	40	32k x 16	1536	23	9.10	8.09	7.25
200521CF	PIC18C452/JW	40	EPROM	40	32k x 16	1536	23	21.95	20.85	20.75

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AT89C Series

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10	100
168866CF	AT89C1051-24PC	20	8-bit MCU, 24MHz 1kb flash mem.	~~$4.95~~ $3.39	$2.14	$1.95
168874CF	AT89C2051-24PC	20	8-bit MCU, 24MHz 2kb flash mem.	~~$4.95~~ 3.59	2.39	2.15
204089CF	AT89C4051-24PC	20	8-bit MCU, 24MHz 4kb flash mem. 8-bit	4.49	2.95	2.65
168903CF	AT89C51-24PC	40	8-bit MCU, 24MHz 4kb flash memory	4.49	3.99	3.59
168920CF	AT89C52-24PC	40	8-bit MCU, 24MHz 8kb flash mem.	~~$5.95~~ 4.39	2.85	2.55
168938CF	AT89C52-24JC	44	8-bit MCU, 24MHz 8kb flash PLCC	~~$4.95~~ 4.35	2.83	2.53
220871CF	AT89S52-24JI	44	8-bit MCU, 8kb programmable flash PLCC	4.35	2.83	2.53
168946CF	AT89C55WD-24PC	40	8-bit MCU, 24MHz 20kb flash memory	7.99	7.19	6.49
204097CF	AT89S8252-24PC	40	8-bit MCU, 24MHz 8kb flash mem. 2kb EEPROM	6.75	4.49	3.95
204100CF	AT90S1200-12PC	20	20 AVR 8-bit RISC MCU, 12MHz 1kb prog. flash	2.95	1.95	1.75
204126CF	AT90S8515-8PC	40	40 AVR 8-bit RISC MCU, 8MHz 8kb prog. flash	7.95	5.49	4.95

Microcontrollers

80C52-BASIC Microcontroller

The 80C52-BASIC chip is a custom-masked 80C52 microcontroller with a full-featured 8k-byte ROM-resident BASIC-52 interpreter.



Hardware: • On-chip oscillator and clock circuit
• Operates DC to 12MHz • 256 x 8-bit RAM
Software: • Full BASIC interpreter in ROM on a single chip
• "Stand-alone" software development
• Interrupts can be handled by BASIC or Assembly Language

Part No.	Product No.	Description	1	10	100
125647CF	80C52BASIC	CPU 8-bit CMOS w/ BASIC interpreter	$29.99	$24.99	$19.99

PARALLAX

50MIPS SX Microcontroller

Part No.	Parallax No.	Description	1	10
162931CF	SX28AC/DP	28-pin DIP package	$5.49	$5.25

PALs and GALs

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
28020CF	PAL16L8	20	Octal 16-input AND-OR-INVERT gate array	$2.25	$1.75	$1.66
88399CF	16V8-10*	20	10ns 64 x 32 AND array	2.59	2.35	2.10
37452CF	16V8-15*	20	15ns 64 x 32 AND array	1.39	1.25	1.12
37461CF	16V8-25*	20	25ns 64 x 32 AND array	1.25	1.09	.99
88292CF	20V8-10**	24	10ns 64 x 40 AND array	3.29	2.99	2.69
38658CF	20V8-15**	24	15ns 64 x 40 AND array	1.75	1.55	1.35
38666CF	20V8-25**	24	25ns 64 x 40 AND array	1.75	1.59	1.45
123801CF	22V10-10	24	10ns 132 x 44 AND array	5.49	4.99	4.49
39159CF	22V10-15	24	15ns 132 x 44 AND array	4.49	3.95	3.55
39167CF	22V10-25	24	25ns 132 x 44 AND array Lattice	3.99	3.49	3.09

GALs are electrically erasable PLDs that can be used in place of numerous PALs

* Replaces PALs: 10H8, 10L8, 10P8, 12H6, 12L6, 12P6, 14H4, 14L4, 14P4, 16H2, 16H8, 16L2, 16L8, 16P2, 16P8, 16R4, 16R6, 16R8, 16RP4, 16RP6,16RP8

** Replaces PALs: 14H8, 14L8, 14P8, 16H6, 16L6, 16P6, 18H4, 18L4, 18P4, 20H2, 20H8, 20L2, 20L8, 20P2, 20P8, 20R4, 20R6, 20R8, 20RP4, 20RP6, 20RP8

PEEL™ Devices (CMOS)

Dual-In-Line

Programmable Electrically Erasable Logic (PEEL) devices allow for superset replacement of over 40 standard 20-pin and 24-pin PLDs (PAL, GAL, EPLD, etc.). They also offer additional architectural features so more logic can be put into every design.

Part No.	Cross Ref.	Pins	Description	1	10	100
105953CF	18CV8P-25	20	PLD superset 12 config. I/O pins (8) 25ns	$2.25	$1.95	$1.45
105996CF	22CV10AP-25	24	PLD superset 4/12 config. I/O pins (10) 25ns	2.59	2.19	1.65

4000 Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
12562CF	CD4001**	14	Quad 2-input NOR gate	$.29	$.24	$.19
12597CF	CD4007	14	Dual comp. pair with inverter	.29	.25	.22
12634CF	CD4011**	14	Quad 2-input NAND gate	.29	.24	.19
12677CF	CD4013**	14	Dual D flip-flop with set/reset	.35	.25	.22
12706CF	CD4015*	16	Dual 4-stage static shift register	.39	.35	.29
12722CF	CD4016*	14	Quad bilateral switch	.29	.24	.19
12749CF	CD4017*	16	Decade counter/divider	.39	.35	.31
12773CF	CD4018	16	Presettable divide-by-N counter	.39	.35	.25
12802CF	CD4020*	16	14-stage binary/ripple counter	.49	.39	.29
12829CF	CD4021	16	8-stage static shift register	.35	.29	.19
54666CF	CD4022	16	Div. by 8-cntr./driver w/ 8-decoded outputs	.59	.43	.37

4000 Series (Continued)

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
12845CF	CD4023*	14	Triple 3-input NAND gate	$.29	$.25	$.19
12853CF	CD4024*	14	7-stage binary counter	.35	.29	.19
12888CF	CD4027*	16	Dual JK master-slave flip-flop	.39	.29	.21
12909CF	CD4028	16	BCD-to-decimal decoder	.35	.29	.19
12925CF	CD4029	16	Presettable up/down counter	.39	.34	.29
12950CF	CD4040*	16	12-stage binary/ripple counter	.35	.29	.19
12984CF	CD4042	16	Quad clocked D latch	.39	.34	.29
12992CF	CD4043	16	Quad NOR R-S latch tri-state	.35	.29	.22
13004CF	CD4044	16	Quad 3-state NAND R-S latch tri-state	.45	.35	.25
13012CF	CD4046*	16	Micropower phase-locked loop	.45	.35	.25
13039CF	CD4047	14	Monostable/astable multivibrator	.35	.29	.19
13055CF	CD4049**	16	Hex/buffer/converter (inverting)	.29	.24	.21
13071CF	CD4050*	16	Hex/buffer/converter (N-inverting)	.29	.25	.19
13098CF	CD4051*	16	Single 8-channel multi./demultiplexer	.45	.39	.35
13119CF	CD4052	16	Diff. 4-channel multi./demultiplexer	.35	.25	.19
13127CF	CD4053	16	Triple 2-channel multi./demultiplexer	.39	.29	.19
13151CF	CD4060	16	14-stage ripple-carry binary	.39	.29	.19
13186CF	CD4066**	14	Quad bilateral switch	.35	.25	.19
13215CF	CD4067	24	16-channel analog multi/demultiplexer	~~$1.75~~ 1.29	1.09	.87
13231CF	CD4069*	14	Hex inverter (74C04)	.29	.25	.19
13258CF	CD4070*	14	Quad EXCLUSIVE-OR gate (74C86)	.29	.26	.23
13274CF	CD4071*	14	Quad 2-input OR gate	.29	.24	.19
13354CF	CD4081*	14	Quad 2-input AND gate	.29	.25	.19
13400CF	CD4093*	14	Quad 2-input NAND Schmitt trigger	.29	.25	.19
13426CF	CD4094	16	8-stage shift-and-store bus register	.49	.43	.37
13434CF	CD4098	16	CMOS/MOS dual mono. multivibrator	~~$.49~~ .39	.35	.29
13442CF	CD4099	16	8-bit addressable latch	.49	.35	.25
44257CF	CD40106	14	Hex inverter Schmitt trigger (74C14)	.39	.35	.31
13469CF	CD4503	16	Tri-state hex buffer (74C367) 80C97	.39	.34	.29
13485CF	CD4510	16	BCD up/down counter	.69	.59	.45
13493CF	CD4511*	16	BCD to 7-seg. latch/decoder/driver	.69	.59	.49
13514CF	CD4512	16	8-channel data selector	.59	.50	.38
13522CF	CD4514	24	4-bit latch/4-16 line decoder	.89	.79	.69
13549CF	CD4516	16	Binary up/down counter	.54	.46	.34
13565CF	CD4518	16	Dual BCD up counter	.49	.42	.31
13581CF	CD4520	16	Dual binary up counter	.45	.35	.25
13590CF	CD4522	16	Program. BCD divide-by-N counter	.89	.76	.57
13602CF	CD4526	16	Divide-by-N counter (binary)	.55	.47	.42
13611CF	CD4528	16	Dual monostable multivibrator	.69	.49	.39
13653CF	CD4538*	16	Dual precision monostable multivibrator	.59	.49	.39
13688CF	CD4541	14	Oscillator/programmable timer	.39	.33	.25
13696CF	CD4543*	16	BCD to 7-segment decoder (LCD)	.59	.45	.29
13709CF	CD4553	16	3-digit BCD counter	2.95	2.75	2.49
13768CF	CD4584*	14	Hex Schmitt trigger (74C14) 40106	.39	.35	.29

*10 pcs. in 4000 series IC cabinet kit, pg 120 **20 pcs. in 4000 series IC cabinet kit, pg 120

7400 Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
48979CF	7400**	14	Quad 2-input NAND gate	$.65	$.55	$.45
49007CF	7401	14	Quad 2-input NAND gate (O.C.)	.49	.45	.39
49015CF	7402*	14	Quad 2-input NOR gate	.59	.49	.45
49040CF	7404**	14	Hex inverter	.59	.49	.45
49074CF	7405*	14	Hex inverter (O.C.)	.49	.37	.26
49091CF	7406**	14	Hex inverter buffer/driver (O.C.)	.45	.39	.35
49120CF	7407**	14	Hex buffer/driver (O.C.)	~~$.49~~ .35	.32	.28
49146CF	7408*	14	Quad 2-input AND gate	.79	.55	.45
49189CF	7410*	14	Triple 3-input NAND gate	.29	.25	.18
49402CF	7413	14	Dual 4-input NAND gate Schmitt trigger	.89	.76	.57
49437CF	7414*	14	Hex inverter Schmitt trigger	.59	.49	.45
49630CF	7416*	14	Hex inverter buffer/driver (O.C.)	.69	.59	.44
49728CF	7417*	14	Hex buffer/driver (O.C. hi-voltage)	.79	.67	.50
50008CF	7420*	14	Dual 4-input NAND gate	.49	.45	.39
50083CF	7425	14	Dual 4-input NOR gate with strobe	.89	.79	.69
50139CF	7427	14	Triple 3-input NOR gate	.59	.50	.38
50198CF	7428	14	Quad 2-input NOR buffer	~~$.89~~ .79	.69	.59
50227CF	7430*	14	8-input NAND gate	.49	.42	.32
50235CF	7432*	14	Quad 2-input OR gate	.59	.49	.45
50315CF	7438*	14	Quad 2-input NAND buffer (O.C.)	.49	.42	.32

*10 pcs. in 7400 series IC cabinet kit, pg 120 **20 pcs. in 7400 series IC cabinet kit, pg 120

Color Code Legend: New Sale Qty Save Refurbished

Call for pricing on quantities over 100 – we carry major manufacturers. We will special order any IC – 100 Piece Minimum

7400 Series (Continued)

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
50358CF	7440	14	Dual 4-input NAND buffer	$.55	$.52	$.49
50374CF	7442	16	BCD-to-decimal decoder	.99	.84	.63
50403CF	7445	16	BCD-to-decimal decoder/driver (30V)	.89	.79	.69
50411CF	7446	16	BCD-to-7 segment decoder/driver (30V)	1.49	1.29	.99
50420CF	7447*	16	BCD-to-7 segment decoder/driver (15V)	1.49	1.29	.99
50518CF	7470*	14	Edge-triggered JK flip-flop	.81	.77	.73
50526CF	7472	14	AND gated JK master/slave flip-flop	.99	.75	.53
50534CF	7473	14	Dual JK flip-flop with clear	.85	.75	.59
50551CF	7474**	14	Dual D flip-flop	.59	.49	.39
50577CF	7475	16	4-bit bi-stable latch	2.95	2.75	2.49
50593CF	7476	16	Dual JK flip-flop with preset and clear	$1.19 .89	.73	.59
50631CF	7483	16	4-bit binary full adder	.89	.79	.69
50657CF	7485*	16	4-bit magnitude comparator	.59	.49	.36
50665CF	7486	14	Quad EXCLUSIVE-OR gate	.89	.75	.56
50681CF	7489	16	64-bit RAM P 50ns	3.49	3.19	2.99
50690CF	7490	14	Decade counter	1.49	1.15	.78
50737CF	7492	14	Divide-by-12 counter	1.49	1.29	.95
50745CF	7493	14	4-bit binary counter	1.49	1.34	1.19
50770CF	7495*	14	4-bit parallel-access shift register (K155N)	.69	.59	.39
50796CF	7497	16	Synch. 6-bit binary rate multipliers	1.59	1.35	.99
49234CF	74107*	14	Dual JK flip-flop with clear	.39	.33	.24
49293CF	74116	24	Dual 4-bit latches with clear	.99	.89	.79
49322CF	74121	14	Monostable multivibrator	.99	.89	.79
49349CF	74122	14	Retriggerable mono. multivibrator with clear	.89	.80	.72
49357CF	74123*	16	Dual retriggerable mono. multivibrator	.89	.79	.72
49373CF	74125	14	Quad bus buffer tri-state (DM8093N)	.89	.79	.69
49411CF	74132*	14	Quad 2-input NAND Schmitt trigger	.89	.69	.49
49496CF	74148	16	8 to 3 line octal priority encoder	.99	.89	.79
49509CF	74150	24	16 to 1 line multiplexer	1.95	1.75	1.55
49525CF	74151*	16	8-input multiplexer	.39	.35	.29
49550CF	74153*	16	Dual 4/1 data selector/multiplexer	.39	.29	.20
49568CF	74154	24	4 to16 line decoder/demultiplexer	2.25	1.95	1.75
49605CF	74157*	16	Quad 2/1 data selector	.49	.37	.26
49648CF	74160*	16	Decade counter with asynch. clear	.39	.33	.25
49664CF	74161	16	Synchronous 4-bit counter	.49	.42	.32
49672CF	74163	16	Synchronous 4-bit counter	.49	.42	.31
49681CF	74164	14	8-bit serial shift register	.59	.50	.38
49699CF	74165	16	8-bit serial shift register, parallel load	.69	.59	.45
49779CF	74174*	16	Hex D-type flip-flop with clear	.69	.59	.45
49795CF	74175*	16	Quad D-type flip-flop with clear	.59	.50	.38
49832CF	74180	14	9-bit odd/even parity generator/checker	1.99	1.79	1.59
49841CF	74181	24	Arithmetic logic unit/function generator	2.29	1.99	1.79
49883CF	74189	16	64-bit RAM tri-state (DM8599N)	3.99	3.39	2.55
49904CF	74191	16	Binary up/down counter	1.29	1.15	.87
49912CF	74192	16	Decade up/down counter with clear	3.69	3.39	3.19
49939CF	74193	16	Binary up/down counter with clear	1.39	1.19	1.09
49955CF	74194	16	4-bit bi-directional shift register	1.39	1.25	1.15
49963CF	74195	16	4-bit parallel-access shift register	1.69	1.62	1.55
50171CF	74279*	16	Quad set-reset latch	1.39	1.25	1.15
88225CF	SDLD001A	—	Texas Instruments TTL Data Book	34.95	31.49	31.49

*10 pcs. in 7400 series IC cabinet kit, pg 120 **20 pcs. in 7400 series IC cabinet kit, pg 120

74AC Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
211801CF	74AC00	14	Quad 2-input NAND gate	$.20	$.18	$.155
211810CF	74AC02	14	Quad 2-input NOR gate	.20	.18	.145
211828CF	74AC04	14	Hex inverter	.18	.15	.12
211836CF	74AC08	14	Quad 2-input AND gate	.19	.17	.14
211844CF	74AC14	14	Hex inverter with Schmitt trigger input	.24	.20	.16
211852CF	74AC32	14	Quad 2-input OR gate	.20	.18	.14
211861CF	74AC74	14	Dual D-type pos. edge-triggered flip-flop	.20	.18	.14
211879CF	74AC86	14	Quad 2-input exclusive OR gate	.20	.18	.14
211887CF	74AC138	16	1 of 8 decoder/demultiplexer	.33	.29	.25
211895CF	74AC240	20	Octal buffer/line driv. w/ 3-st. outputs (2-6V)	.32	.29	.235
211908CF	74AC244	20	Octal buffer/line driv. w/ 3-st. outputs (4.5-5.5V)	.35	.325	.27
211916CF	74AC245	20	Octal bidirectional trans. w/ 3-state I/O	.37	.30	.27
211924CF	74AC273	20	Octal D-type flip-flop	.40	.36	.30
211932CF	74AC373	20	Octal transparent latch w/ 3-state outputs	.40	.36	.30
211941CF	74AC374	20	Octal D-type flip-flop w/ 3-state outputs	.32	.29	.24

74ACT Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
211959CF	74ACT00	14	Quad 2-input NAND gate	$.20	$.18	$.14
211967CF	74ACT02	14	Quad 2-input NOR gate	.36	.25	.22
211975CF	74ACT04	14	Hex inverter	.21	.19	.15
211983CF	74ACT08	14	Quad 2-input AND gate	.17	.16	.15
211991CF	74ACT14	14	Hex inverter with Schmitt trigger input	.22	.20	.17
212003CF	74ACT32	14	Quad 2-input OR gate	.20	.20	.20
212011CF	74ACT74	14	Dual D-type pos. edge-triggered flip-flop	.20	.18	.14
212020CF	74ACT86	14	Quad 2-input exclusive OR gate	.20	.18	.14
212038CF	74ACT138	16	1 of 8 decoder/demultiplexer	.32	.28	.27
212046CF	74ACT240	20	Octal buffer/line driv. w/ 3-st. outputs (2-6V)	.32	.29	.235
212054CF	74ACT244	20	Octal buffer/line driv. w/ 3-st. outputs (4.5-5.5V)	.35	.325	.27
212062CF	74ACT245	20	Octal bidirectional trans. w/ 3-state I/O	.39	.34	.31
212071CF	74ACT273	20	Octal D-type flip-flop	.63	.44	.37
212089CF	74ACT373	20	Octal transparent latch w/ 3-state outputs	.55	.44	.34
212097CF	74ACT374	20	Octal D-type flip-flop w/ 3-state outputs	.32	.29	.22

74AHC Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
214092CF	74AHC00N	14	Quad 2-input positive NAND gate	$.34	$.29	$.25
214105CF	74AHC02N	14	Quad 2-input positive NOR gate	.34	.30	.27
214113CF	74AHC04N	14	Hex inverter	.46	.35	.26
214121CF	74AHC08N	14	Quad 2-input positive AND gate	.34	.29	.25
214130CF	74AHC14N	14	Hex inverter with Schmitt trigger input	.34	.32	.26
214148CF	74AHC32N	14	Quad 2-input positive OR gate	.46	.35	.26
214156CF	74AHC74N	14	Dual D-type pos. edge-triggered flip-flop	.29	.27	.25
214164CF	74AHC86N	14	Quad 2-input exclusive OR gate	.37	.32	.28
214172CF	74AHC240N	20	Octal buffer/driver w/ 3-st. outputs	.57	.51	.42
214181CF	74AHC244N	20	Octal buffer/driver w/ 3-st. outputs	.49	.44	.39
214199CF	74AHC245N	20	Octal bus transceiver w/ 3-state outputs	.52	.42	.37
214201CF	74AHC373N	20	Octal transparent D-type latch w/ 3-st. outputs	.42	.39	.37
214210CF	74AHC374N	20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	.49	.44	.39
214228CF	74AHC541N	20	Octal buffer/driver w/ 3-state outputs	.39	.37	.30
214236CF	74AHC574N	20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	.53	.48	.43

74AHCT Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
43844CF	74AHCT00N	14	Quad 2-input positive NAND gate	$.25	$.23	$.21
43852CF	74AHCT02N	14	Quad 2-input positive NOR gate	.25	.23	.21
43861CF	74AHCT04N	14	Hex inverter	.25	.24	.23
63431CF	74AHCT08N	14	Quad 2-input positive AND gate	.24	.23	.22
63458CF	74AHCT14N	14	Hex inverter with Schmitt trigger input	.24	.23	.22
43924CF	74AHCT74N	14	Dual D-type pos. edge-triggered flip-flop	.34	.29	.24
43932CF	74AHCT86N	14	Quad 2-input exclusive OR gate	.34	.29	.26
214244CF	74AHCT240N	20	Octal buffer/driver w/ 3-st. outputs (2-6V)	.46	.44	.42
63466CF	74AHCT244N	20	Octal buffer/driver w/ 3-st. outputs (4.5-5.5V)	.24	.21	.17
43887CF	74AHCT245N	20	Octal bus transceiver w/ 3-state outputs	.41	.39	.35
43908CF	74AHCT373N	20	Octal transparent D-type latch w/ 3-st. outputs	.39	.37	.35
43916CF	74AHCT374N	20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	.49	.45	.36
214252CF	74AHCT574N	20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	.46	.44	.42

74C Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
44222CF	74C00	14	Quad 2-input NAND gate	$.79	$.59	$.41
44231CF	74C04	14	Hex inverter (CD4069)	.79	.59	.41
44257CF	74C14	14	Hex inverter Schmitt trigger (CD40106)	.39	.35	.31
44441CF	74C74	14	Dual D flip-flop	1.59	1.35	1.05
44361CF	74C221	16	Dual monostable multivibrator	3.95	3.59	3.25
13469CF	74C367	16	Hex buffer tri-state (80C97/CD4503)	.39	.34	.29
44396CF	74C373	20	Octal D-type flip-flop with clear tri-state	3.75	3.25	2.49
44409CF	74C374	20	Octal D-type flip-flop tri-state (INS82C06N)	1.69	1.49	1.35
44564CF	74C922	18	16-key keyboard encoder (INS8245N)	6.29	5.05	4.26
44572CF	74C923	20	20-key keyboard encoder (INS8246N)	$6.95 5.99	4.95	4.09
44581CF	74C925	16	4-digit CTR with MUX D segment driver	13.99	11.49	10.49
44599CF	74C926	18	4-digit CTR with MUX D segment driver	6.95	6.25	5.65

30-Day Money-Back Guarantee

Call for pricing on quantities over 100 – we carry major manufacturers. We will special order any IC – 100 Piece Minimum

74HC Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
45161CF	74HC00	14	Quad 2-input NAND gate (6231581)	$.29	$.19	$.14
45188CF	74HC02	14	Quad 2-input NOR gate	.29	.15	.10
45209CF	74HC04	14	Hex inverter (buffered)	.25	.22	.19
45225CF	74HC08	14	Quad 2-input AND gate	.19	.17	.15
45233CF	74HC10	14	Triple 3-input NAND gate	.29	.22	.19
45268CF	74HC11	14	Triple 3-input AND gate	.19	.16	.14
45364CF	74HC14	14	Hex inverter Schmitt trigger	.29	.22	.19
45786CF	74HC30	14	8-input NAND gate	.29	.22	.15
45794CF	74HC32	14	Quad 2-input OR gate	.29	.24	.19
46130CF	74HC74	14	Dual D flip-flop	.35	.32	.29
46172CF	74HC85	16	4-bit magnitude comparator	.49	.45	.39
46181CF	74HC86	14	Quad EXCLUSIVE-OR gate	.39	.28	.19
45292CF	74HC123	16	Dual retrig. monostable multivibrator	.39	.25	.19
45305CF	74HC125	14	Quad bus buffer tri-state	.39	.33	.27
45321CF	74HC132	14	Quad 2-input NAND Schmitt trigger	.35	.30	.22
45330CF	74HC138	16	3-to-8 decoder/demultiplexer	.35	.29	.20
45356CF	74HC139	16	2-to-4 decoder/demultiplexer	.35	.29	.19
45401CF	74HC154	24	4/16 line decoder (.3"W) ~~$1.19~~	1.09	.98	.89
111739CF	74HC154W	24	4/16 line decoder (.6"W)	1.59	1.09	.89
45428CF	74HC157	16	Quad 2-input multiplexer	.39	.33	.25
45452CF	74HC161	16	Synchronous 4-bit counter	.39	.33	.25
45479CF	74HC163	16	Synchronous 4-bit counter	.49	.45	.40
45487CF	74HC164	14	8-bit serial shift register	.39	.35	.29
45495CF	74HC165	16	Parallel load 8-bit serial shift register	.39	.29	.20
45508CF	74HC174	16	Hex D flip-flop with clear	.49	.42	.31
45541CF	74HC192	16	Decade up/down counter with clear	1.59	1.45	1.29
45559CF	74HC193	16	Binary up/down counter with clear ~~$.99~~	.59	.54	.49
45604CF	74HC221	16	Dual mono. multivibrator Schmitt trigger	.55	.47	.35
45612CF	74HC240	20	Octal inverting line driver tri-state	.49	.39	.34
45655CF	74HC244	20	Octal driver tri-state	.45	.39	.29
45671CF	74HC245	20	Octal transceiver tri-state	.45	.38	.29
45743CF	74HC273	20	Octal D-type flip-flop with clear	.39	.29	.19
45831CF	74HC373	20	Octal D-type flip-flop tri-state	.45	.39	.35
45858CF	74HC374	20	Octal D-type flip-flop edge-trig tri-state	.49	.39	.29
45874CF	74HC393	14	Dual 4-bit binary counter	.39	.29	.22
109760CF	74HC540	20	Octal invert. buffer/line driver tri-state	.65	.49	.34
46050CF	74HC541	20	Octal buffer/line driver tri-state	.69	.55	.35
46076CF	74HC573	20	Octal D-type flip-flop tri-state	.49	.39	.29
46084CF	74HC574	20	Octal D-type flip-flop tri-state	.59	.44	.31
88090CF	74HC590	16	8-bit binary counter w/ output reg. tri-state	.89	.67	.47
46105CF	74HC595	16	8-bit serial-to-parallel shift reg. tri-state ~~$.99~~	.62	.44	.39
46113CF	74HC688	20	8-bit mag. comparator	.69	.59	.55
45891CF	74HC4017	16	Decade ctr./div. with 10 decoded outputs	.59	.50	.38
45903CF	74HC4020	16	14-stage binary counter	.59	.45	.34
45920CF	74HC4040	16	12-stage binary counter	.59	.39	.35
45938CF	74HC4046	16	CMOS phase lock loop	.56	.42	.29
88102CF	74HC4051	16	Single 8-channel multi/demultiplexer ~~$.89~~	.39	.29	.20
45962CF	74HC4060	16	14-stage binary counter	.59	.44	.31
45971CF	74HC4066	14	Quad analog switch	.55	.41	.35
46009CF	74HC4514	S-24	4/16-line decoder with latch (.3"W)	1.09	.99	.79
46017CF	74HC4538	16	Dual retrig. mono. multivibrator	.47	.35	.25

74HCT Series

Dual-In-Line

∗ Prepackaged: order in increments of 10 or 100

Part No.	Cross Ref.	Pins	Description	1	10	100
44871CF	74HCT00	14	Quad 2-input NAND gate (Y560820T)	$.26	$.19	$.17
44898CF	74HCT04	14	Hex inverter	.24	.21	.18
44901CF	74HCT08	14	Quad 2-input AND gate	.26	.19	.17
44935CF	74HCT14	14	Hex inverter Schmitt trigger	.30	.22	.19
45057CF	74HCT32	14	Quad 2-input OR gate	.26	.19	.17
45137CF	74HCT74	14	Dual D flip-flop ~~$.35~~ ∗	.12	.10	
44927CF	74HCT138	16	3-to-8 decoder/demultiplexer	.34	.33	.31
63773CF	74HCT139	16	2-to-4 decoder/demultiplexer	.29	.25	.22
88057CF	74HCT154	24	4-to-16 decoder/demultiplexer	.99	.84	.71
45014CF	74HCT240	20	Octal inverting line driver tri-state	.49	.36	.31
45022CF	74HCT244	20	Octal driver tri-state	.39	.33	.24
45031CF	74HCT245	20	Octal transceiver tri-state	.39	.33	.25
45049CF	74HCT273	20	Octal D-type flip-flop with clear	.46	.37	.28
45065CF	74HCT373	20	Octal D-type flip-flop tri-state	.49	.36	.25

74HCT Series (Continued)

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
45073CF	74HCT374	20	Octal D-type flip-flop edge-trig. TS	$.49	$.36	$.25
99303CF	74HCT541	20	Octal buffer/line driver tri-state	.69	.59	.39
45090CF	74HCT573	20	Octal D-type latched flip-flop tri-state	.69	.59	.42
45102CF	74HCT574	20	Octal D-type flip-flop edge-trigger tri-state	.69	.52	.36
45129CF	74HCT688	20	8-bit magnitude comparator	.69	.59	.49

74LS Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
46252CF	74LS00**	14	Quad 2-input NAND gate	$.29	$.27	$.24
46287CF	74LS02**	14	Quad 2-input NOR gate	.29	.25	.21
46308CF	74LS03	14	Quad 2-input NAND gate (O.C.)	.32	.27	.20
46316CF	74LS04**	14	Hex inverter	.29	.26	.23
46341CF	74LS05*	14	Hex inverter (O.C.)	.34	.26	.18
46359CF	74LS06	14	Hex inverter buffer/driver (O.C.)	.59	.55	.49
46367CF	74LS07	14	Hex buffer/driver (O.C. hi-voltage) ~~$.99~~	.84	.79	.74
46375CF	74LS08**	14	Quad 2-input AND gate	.36	.31	.22
46391CF	74LS09	14	Quad 2-input AND gate (O.C.)	.25	.19	.13
46404CF	74LS10*	14	Triple 3-input NAND gate ~~$.29~~	.21	.16	.11
46439CF	74LS11*	14	Triple 3-input AND gate	.31	.23	.16
46640CF	74LS14*	14	Hex inverter Schmitt trigger	.29	.25	.18
47095CF	74LS20*	14	Dual 4-input NAND gate ~~$.35~~	.23	.18	.14
47108CF	74LS21	14	Dual 4-input AND gate ~~$.29~~	.21	.18	.14
47378CF	74LS27	14	Triple 3-input NOR gate	.23	.20	.15
47458CF	74LS30*	14	8-input NAND gate	.29	.25	.18
47466CF	74LS32**	14	Quad 2-input OR gate	.29	.26	.23
47597CF	74LS37	14	Quad 2-input NAND gate buffer	.59	.49	.37
47693CF	74LS38	14	Quad 2-input NAND gate buffer (O.C.)	.29	.25	.18
47773CF	74LS42	16	BCD-to-decimal decoder/driver	.69	.59	.49
47790CF	74LS47*	16	BCD to 7-seg. decoder/driver (O.C.) ~~$.99~~	.72	.52	.45
47811CF	74LS48	16	BCD to 7-seg. decoder/driver	4.99	4.49	3.59
47992CF	74LS73*	14	Dual JK flip-flop with clear ~~$.49~~	.36	.33	.27
48004CF	74LS74**	14	Dual D flip-flop	.29	.25	.22
48021CF	74LS75*	16	4-bit bi-stable latch	.55	.43	.35
48039CF	74LS76	16	Dual JK flip-flop with preset and clear	.69	.62	.55
48063CF	74LS83	16	4-bit binary full adder	.45	.39	.35
48071CF	74LS85*	16	4-bit magnitude comparator	.39	.29	.25
48098CF	74LS86*	14	Quad EXCLUSIVE-OR gate	.35	.30	.22
48119CF	74LS90*	14	Decade counter	.49	.45	.39
48143CF	74LS92	14	Divide-by-12 counter	.45	.39	.35
48151CF	74LS93*	14	4-bit binary counter	.89	.79	.70
48178CF	74LS95	14	4-bit parallel-access shift register	.89	.79	.69
46412CF	74LS107	14	Dual JK flip-flop with clear	.39	.29	.20
46421CF	74LS109	16	Dual JK pos. edge-trig. flip-flop	.29	.22	.15
46447CF	74LS112	16	Dual JK neg. edge-trig. flip-flop	.29	.22	.15
46471CF	74LS122	14	Retrig. mono. multivibrator comm. CLK	.39	.29	.20
46480CF	74LS123*	16	Dual mono. multivibrator with clear	.33	.28	.21
46501CF	74LS125*	14	Quad bus buffer neg. enable tri-state	.39	.31	.23
46527CF	74LS126	14	Quad bus buffer tri-state	.35	.30	.22
46551CF	74LS132	14	Quad 2-input NAND Schmitt trigger	.35	.26	.18
46586CF	74LS136	14	Quad EXCLUSIVE-OR gate (O.C.)	.49	.44	.31
46607CF	74LS138**	16	3 to 8 decoder/demultiplexer	.38	.35	.26
46623CF	74LS139*	16	2 to 4 decoder/demultiplexer	.36	.31	.23
46666CF	74LS145	16	BCD-to-decimal decoder/driver	.49	.45	.39
46682CF	74LS148	16	8 to 3 priority encoder	.79	.69	.56
46703CF	74LS151*	16	8-input multiplexer	.39	.35	.31
46720CF	74LS153	16	Dual 4-to-1 selector/multiplexer	.29	.25	.18
46738CF	74LS154	24	4 to 16 line decoder/demultiplexer	2.49	2.25	2.05
46754CF	74LS155*	16	Dual 2/4 demultiplexer	.39	.33	.25
46762CF	74LS156	16	Dual 2/4 demultiplexer (O.C.) ~~$.49~~	.19	.17	.15
46771CF	74LS157*	16	Quad 2/1 data selector	.29	.25	.18
46800CF	74LS160	16	Decade counter with asynch. clear	.89	.79	.69
46818CF	74LS161	16	Synch 4-bit counter	.35	.30	.22
46842CF	74LS163	16	Fully synch. 4-bit counter	.35	.29	.22
46851CF	74LS164	14	8-bit serial shift register	.37	.31	.24
46877CF	74LS165	16	8-bit serial shift register, parallel load	.49	.42	.31
46885CF	74LS166	16	8-bit shift register, parallel load	.39	.32	.22
46906CF	74LS169	16	Synch. binary up/down counter	.64	.55	.41
46922CF	74LS173	16	4-bit D-type reg. tri-state	.49	.44	.39

*10 pcs. in 74LS series IC cabinet kit, pg 120 **20 pcs. in 74LS series IC cabinet kit, pg 120

Call for pricing on quantities over 100 – we carry major manufacturers. We will special order any IC – 100 Piece Minimum

74LS Series (Continued)

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
46931CF	74LS174*	16	Hex D flip-flop with clear	$.35	$.28	$.19
46957CF	74LS175*	16	Quad D flip-flop with clear	.35	.31	.27
46973CF	74LS181	24	Arithmetic logic unit/function generator	1.25	1.05	.71
46990CF	74LS190	16	Synchronous up/down counter	1.49	1.34	1.19
47001CF	74LS191	16	Up/down binary counter	.39	.33	.25
47010CF	74LS192	16	Decade up/down counter with clear	3.95	3.59	3.25
47036CF	74LS193*	16	Binary up/down counter with clear	.59	.49	.45
47052CF	74LS194	16	4-bit bi-directional shift register	.59	.49	.45
47061CF	74LS195	16	4-bit parallel-access shift register	.39	.32	.22
47124CF	74LS221	16	Dual mono. multivibrator Schmitt trigger	.39	.35	.29
47141CF	74LS240*	20	Octal invert. line driver tri-state	.44	.37	.28
47167CF	74LS241	20	Octal bus/line driver tri-state	.39	.33	.24
47183CF	74LS244*	20	Octal driver tri-state	.44	.37	.28
47212CF	74LS245*	20	Octal bus transceiver tri-state	.45	.39	.35
47247CF	74LS247	16	BCD to 7-segment decoder/driver (O.C.)	.79	.69	.49
47271CF	74LS251	16	8-channel multiplexer tri-state	.39	.31	.25
47298CF	74LS257	16	Quad 2-input multiplexer tri-state ~~$.35~~	.21	.19	.17
47327CF	74LS259	16	8-bit addressable latch	.39	.33	.25
47360CF	74LS266	14	Quad EXCLUSIVE-NOR gate (O.C.)	.39	.29	.25
47386CF	74LS273*	20	Octal D-type flip-flop with clear	.39	.35	.29
47407CF	74LS279	16	Quad set-reset latches	.39	.33	.25
47423CF	74LS283	16	4-bit binary full add with fast carry ~~$.45~~	.45	.34	.24
47440CF	74LS299	20	8-bit universal shift/storage register	1.19	1.05	.76
47546CF	74LS365	16	Hex buffer with logical OR tri-state	.69	.62	.55
47562CF	74LS367	16	Hex buffer tri-state	.39	.33	.25
47600CF	74LS373*	20	Octal D flip-flop tri-state	.45	.39	.35
47634CF	74LS374*	20	Octal D F/F edge-trig tri-state	.45	.39	.34
47669CF	74LS377	20	Octal D register common enable	.53	.45	.34
47722CF	74LS390	16	Dual 4-bit decade counter	.55	.47	.35
47731CF	74LS393	14	Dual 4-bit binary counter	.49	.39	.30
47861CF	74LS540	20	Octal invert. buffer/line driver tri-state	.69	.59	.44
47870CF	74LS541	20	Octal buffer/line driver tri-state	.69	.59	.49
64418CF	74LS573	20	Octal D-type F/F latch tri-state	1.65	1.45	.98
64426CF	74LS574	20	Octal D-type F/F edge-trig. tri-state	1.69	1.45	1.09
47909CF	74LS590	16	8-bit binary counter without reg. tri-state	5.49	4.69	3.55
103974CF	74LS595	16	8-bit serial-to-parallel shift reg. tri-state	4.49	3.99	3.49
47950CF	74LS645	20	Octal bus transceiver tri-state	1.69	1.45	1.09
47984CF	74LS688	20	8-bit magnitude comparator	1.09	.89	.69

*10 pcs. in 74LS series IC cabinet kit, pg 120

74S Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
48531CF	74S188	16	256-bit (32 x 8) PROM O.C. (27S18)	$4.95	$4.25	$3.19
48557CF	74S189	16	64-bit (16 x 4) RAM tri-state (27S03)	3.95	3.49	3.15
48696CF	74S287	16	1k-bit (256 x 4) PROM tri-state (TBP24S10)	6.95	6.25	5.65
48717CF	74S288	16	256-bit (32 x 8) PROM tri-state (TBP18S030N)	2.99	2.55	2.42
52513CF	74S428	28	System contr./bus driver (8228)	2.95	2.55	1.89
48864CF	74S472	20	4k-bit (512 x 8) PROM tri-state (TBP28S42N)	8.95	7.95	6.95
48910CF	74S571	16	2k-bit (512 x 4) PROM tri-state (AM27S13)	5.99	5.69	5.39
48928CF	74S573	18	4k-bit (1024 x 4) PROM tri-state (53S441J)	3.05	2.73	2.46

Maxim-Type Interface Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
142535CF	HIN202CP	16	+5V RS-232 trans. requires 0.1µF caps	$2.49	$2.25	$2.05
24811CF	MAX232CPE SP232ACP	16	+5V powered, dual RS-232 transmitter/ receiver (0°C to +70°C)	2.19	1.75	1.45
106155CF	MAX232EPE SP232AEP	16	+5V powered, dual RS-232 transmitter/receiver (-40°C to +85°C)	2.49	2.25	2.05
106163CF	MAX233CPP SP233ACP	20	+5V powered, multichannel RS-232 drivers/receivers (no ext. components)	5.75	5.18	4.66
106171CF	MAX235CPG SP235ACP	24	+5V powered, five RS-232 transmitter/ receiver (no ext. components)	9.95	8.95	7.85
106180CF	MAX238CNG SP238ACS	24	+5V powered, quad RS-232 transmitter and receiver	5.25	4.70	3.59
106219CF	MAX690CPA SP690ACP	8	Microprocessor watchdog/battery switchover/reset generator	4.99	4.49	3.25
106227CF	MAX691CPE ADM691AN	16	Microprocessor watchdog/battery switchover/reset generator	6.25	4.35	3.60
106260CF	MAX1232CPA	8	Microprocessor monitor	2.49	2.25	2.05

9000 Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
53663CF	9368	16	FND70 driver/latch	$4.49	$3.95	$3.55
10567CF	AM9513APC	40	System timing controller	39.95	33.99	25.49

A/D & D/A Converters

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
115158CF	AD558JN	16	Microprocessor compat. 8-bit DAC	$17.99	$12.75	$11.49
10145CF	ADC0803LCN	20	8-bit A/D converter (±1/2 LSB)	5.95	5.09	3.79
10153CF	ADC0804LCN	20	8-bit A/D converter (1 LSB)	2.69	2.39	2.09
10170CF	ADC0808CCN	28	8-bit A/D convtr. w/ 8-ch. multiflexer ~~$5.95~~	4.99	4.15	3.89
10188CF	ADC0809CCN	28	8-bit A/D convtr. w/ 8-ch. multiflexer	2.95	2.75	2.49
10209CF	ADC0817CCN	40	8-bit A/D convtr. w/ 16-ch. multiflexer ~~$9.95~~	8.45	7.49	6.99
10225CF	ADC0820CCN	20	8-bit high speed A/D conv. w/ track/hold	3.19	2.75	2.55
116100CF	ADC0831CCN	8	8-bit A/D converter w/ single diff. input	1.95	1.75	1.59
14904CF	DAC0800LCN	16	8-bit D/A converter (±1 LSB)	1.79	1.59	1.45
14912CF	DAC0806LCN	16	8-bit D/A converter (±1 LSB) MC1408P6	1.89	1.85	1.82
14947CF	DAC0808LCN	16	8-bit D/A converter (MC1408P8)	1.59	1.39	1.09
14963CF	DAC0830LCN	20	8-bit µP D/A converter (.05% Lin.)	5.95	4.49	4.35
128186CF	DAC0832LCN	20	8-bit µP D/A conv. dbl. buff. (.05% Lin.)	3.95	3.59	3.25
14980CF	DAC1222LCN	18	12-bit D/A converter (.20% Lin.)	9.95	8.95	8.05
14947CF	MC1408-8	16	8-bit D to A converter (DAC0808LCN)	1.59	1.39	1.09
43748CF	7106CPL	40	3 1/2-digit LCD single-chip A/D converter	3.39	2.99	2.49
43756CF	7107CPL	40	3 1/2-digit LED single-chip A/D converter	3.49	2.79	2.59
43764CF	7109CPL	40	12-bit A/D converter	7.99	6.79	5.09
51879CF	8038CCPD	14	Waveform generator/volt control OSC	3.19	2.49	2.39

Digital Interface ICs

Stepper Motor Controllers

Designed to interface a logic level input byte to a stepper motor.

Part No.	Product No.	Pins	Description	1	10	50
141532CF	EDE1200	18	Unipolar stepper motor controller	$8.95	$7.95	$6.95
157526CF	EDE1204	18	Bipolar stepper motor controller	8.95	7.95	6.95

Keypad Encoder

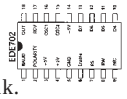
Designed to interface a matrix type 4 row x 4 column (16 key or less) keypad to a microcontroller or other host processor.



Part No.	Product No.	Pins	Description	1	10	50
171969CF	EDE1144	18	Keypad Encoder	$6.95	$6.25	$5.59

Serial LCD Interface

Provides a cost-effective LCD control solution for a wide variety of embedded designs. Allows nearly any-text based LCD module to be controlled via a simple one-wire data link.



Part No.	Product No.	Pins	Description	1	10	50
171951CF	EDE702	18	Serial LCD Interface	$8.95	$7.95	$6.95

HOLTEK Remote Control Encoders/Decoders

Part No.	Product No.	Pins	Description	1	10	100
123730CF	HT12E	18	Encoder 12-bit	$1.69	$1.49	$1.35
123748CF	HT12D	18	Decoder 8-bit address / 4-bit data	1.69	1.49	1.35
126594CF	HT640	24	Encoder 10-bit address / 8-bit address/data	2.95	2.75	2.49
126607CF	HT648L	24	Decoder 10-bit address / 8-bit latch data	3.29	2.99	2.69

KAE Servo and Stepper Motor Controllers

Controllers operate from standard 8-bit serial interface (RS232 or RS485). Using RS485, any mix of up to 32 controllers may be operated from a single serial port. Complete documentation.

146472CF: PIC-SERVO Motion Control Chipset for DC Motors

- PIC servo control for DC motors with digital encoders
- 32-bit position, velocity, and acceleration resolution
- PWM and direction outputs connect to servo amplifier
- Two chip set (PIC-SERVO 28-pin and PIC-ENC 18-pin)



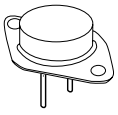
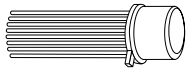
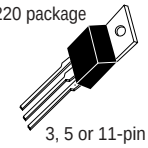
175901CF

175901CF: PIC-STEP Motion Control Chip for Stepper Motors

- Step rates up to 50,000 steps/sec. – suitable for use with microstepping drivers
- Trapezoidal positioning and profiled velocity modes
- Programmable current limits automatically switch between holding and running currents • Programmable accelerations and minimum step rates

Part No.	Description	Pins	1	10	50
146472CF	PIC-SERVO chip set, 0.3" DIP	28/18	$34.95	$29.95	$27.95
175901CF	PIC-STEP chip, 0.3" DIP	28	32.95	29.69	26.69

Call for pricing on quantities over 100 – we carry major manufacturers. **We will special order any IC – 100 Piece Minimum**

TO-3 package	TO-5 package	TO-92 package	TO-220 package	DIP package
				
2 or 4-pin	8-pin	3-pin	3, 5 or 11-pin	8, 10, 14, 16, 18, 20, 24 or 28-pin

Voltage Regulators

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
23499CF	LM309K	TO-3/2	5V 1A regulator (0˚C to +125˚C)	$4.95	$4.09	$3.05
192268CF	LM317AT	TO-220/3	3-terminal adjustable reg. (1.2V-37V)	1.95	1.49	1.09
192276CF	LM317HVT	TO-220/3	3-terminal adjustable reg. (1.2V-57V)	2.75	2.05	1.49
23544CF	LM317K	TO-3/2	1.5A adj. pos. reg. (1.2V-37V)	1.89	1.65	1.25
23552CF	LM317LZ	TO-92	100mA adj. pos. reg. (1.2V-37V)	.26	.24	.22
23579CF	LM317T**	TO-220/3	1.5A adj. pos. reg. (1.2V-37V)	.49	.44	.39
23798CF	LM337K	TO-3/2	1.5A/3 term. adj. neg. reg.	3.49	2.99	2.25
23819CF	LM337T*	TO-220/3	1.5A/adj. neg. reg. (-1.2V-37V)	.69	.59	.49
23835CF	LM338K	TO-3/2	5A adj. pos. reg. (1.2V-32V)	3.95	3.59	3.25
192284CF	LM338T	TO-220/3	5A adjustable regulator	1.99	1.49	.99
23931CF	LM350K	TO-3/2	3A/3 term. adj. pos. reg. (1.2V-33V)	4.39	3.75	2.85
23940CF	LM350T	TO-220/3	3 amp. adj. power regulator ~~$2.99~~	1.75	1.55	1.35
24467CF	LM723CN*	DIP-14	Voltage regulator (2V-37V)	.29	.26	.23
192292CF	LM1086CTADJ	TO-220/3	1.5A low drop out positive regulator	1.29	.89	.69
192305CF	LM1086CT-3.3	TO-220/3	1.5A low drop out positive regulator (3.3V)	1.49	1.09	.85
192313CF	LM1086CT-5.0	TO-220/3	1.5A low drop out positive reg. (5V)	1.29	.89	.69
192330CF	LM2574HVN-5.0	DIP-8	Simple Switcher 0.5A step down volt. reg.	2.99	2.79	2.39
156566CF	LM2574N-5	DIP-8	Step-down 5-voltage regulator	1.49	1.29	1.09
192372CF	LM2576HVT-ADJ	TO-220/5	Simple Switcher 3A step down volt. reg.	3.95	3.65	3.55
192381CF	LM2576HVT-5.0	TO-220/5	Simple Switcher 3A step down volt. reg.	5.55	4.29	3.19
192399CF	LM2576HVT-12	TO-220/5	Simple Switcher 3A step down volt. reg. ~~$6.95~~	5.55	4.55	3.55
192410CF	LM2587T-ADJ	TO-220/5	Simple Switcher 5A flyback regulator ~~$8.25~~	5.99	5.49	4.99
192428CF	LM2594N-ADJ	DIP-8	Simple Switcher pwr. conv. 150kHz 0.5A ~~$3.99~~	2.59	1.99	1.69
192452CF	LM2595T-5.0	TO-220/5	Simple Switcher pwr. conv. 150kHz 1A	3.49	2.89	2.49
107166CF	LM2936Z-5	TO-92	Ultra-low quiescent current 5V reg.	1.49	1.29	1.19
107182CF	LM2940CT-5	TO-220/3	5V low dropout reg. (max. 45Vin)	1.29	1.19	1.09
192495CF	LM2940CT-12	TO-220/3	12V low dropout reg. (max 45Vin)	1.39	1.09	.79
121064CF	LM2941CT	TO-220/5	1A low dropout adjustable reg. (45Vin)	1.05	.91	.75
23376CF	LM2941T	TO-220/5	1A low dropout adjustable reg. (60Vin)	1.59	1.29	.89
192524CF	LM3940IT-3.3	TO-220/3	1A low dropout reg. for 5V to 3.3V conv.	2.39	1.69	1.29
51174CF	7660CPA	DIP-8	CMOS volt convrtr. (+5 to ±5V) (M660AN) ~~$1.49~~	.85	.77	.64
51182CF	78L05**	TO-92	5V 100mA pos. voltage regulator	.27	.24	.22
192225CF	78L09	TO-92	9V 100mA pos. voltage regulator	.22	.20	.18
51203CF	78L12*	TO-92	12V 100mA pos. voltage regulator	.25	.21	.16
192233CF	78M05	TO-220/3	5V 500mA pos. voltage regulator	.35	.30	.22
192241CF	78M12	TO-220/3	12V 500mA pos. voltage regulator	.35	.32	.28
192250CF	78M15	TO-220/3	15V 500mA pos. voltage regulator	.35	.30	.22
51238CF	78S40	DIP-16	1.25V-40V 1.5A switching regulator	1.69	1.19	.92
51246CF	7805K	TO-3/2	5V 1A pos. voltage reg. (LM340K-5)	1.69	1.55	1.39
51318CF	7812K	TO-3/2	12V 1A pos. voltage reg. (LM340K-12)	1.69	1.55	1.39
51369CF	7815K	TO-3/2	15V 1A pos. voltage reg. (LM340K-15)	1.39	1.19	.89
51262CF	7805T**	TO-220/3	5V 1A pos. voltage reg. (LM340T-5)	.35	.32	.28
51297CF	7806T	TO-220/3	6V 1A pos. voltage reg. (LM340T-6)	.35	.32	.28
51300CF	7808T*	TO-220/3	8V 1A pos. voltage reg. (LM340T-8)	.35	.32	.28
51334CF	7812T**	TO-220/3	12V 1A pos. voltage reg. (LM340T-12)	.35	.26	.18
51377CF	7815T*	TO-220/3	15V 1A pos. voltage reg. (LM340T-15)	.35	.28	.22
194634CF	7818T	TO-220/3	18V 1A pos. voltage reg. (LM340T-18)	.35	.32	.28
51414CF	7824T	TO-220/3	24V 1A pos. voltage reg. (LM340T-24)	.35	.32	.28
51422CF	79L05	TO-92	5V 100mA neg. voltage regulator	.25	.19	.13
51431CF	79L12	TO-92	12V 100mA neg. voltage regulator	.28	.25	.23
194749CF	79L15	TO-92	15V 100mA neg. voltage regulator	.29	.22	.19
51457CF	7905T*	TO-220/3	5V 1A neg. voltage reg. (LM320T-5)	.39	.35	.29
51481CF	7912T*	TO-220/3	12V 1A neg. voltage reg. (LM320T-12)	.39	.35	.29
51502CF	7915T*	TO-220/3	15V 1A neg. voltage reg. (LM320T-15)	.34	.28	.22

*10 pieces included in Linear kit on page 120 **20 pieces included in Linear kit on page 120

Even lower OEM pricing for larger orders!

Corporate Customers

Call 1-800-831-4242 for details today.

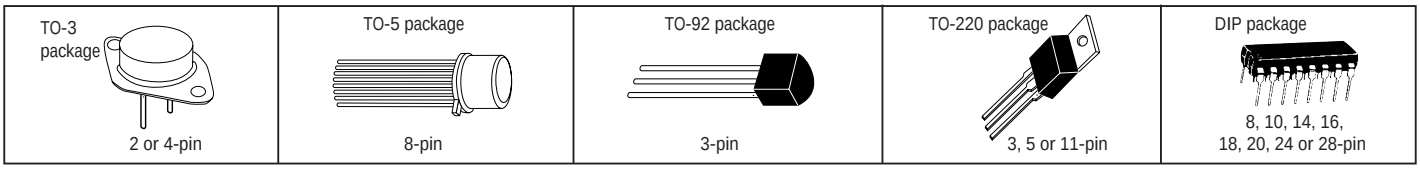
Linear Series

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
23051CF	LH0002CN	DIP-10	General purpose buffer	$9.95	$8.95	$7.95
27852CF	OP07	DIP-8	Ultra-low-offset-voltage op amp.	.99	.89	.79
120715CF	LM10CN	DIP-8	Op amp and voltage reference	2.89	2.69	2.49
23106CF	LM10CLN	DIP-8	Low voltage (1.1 volt) op amp.	2.49	1.99	1.59
25751CF	MF10CN	DIP-20	General purpose dual active filter	3.25	2.75	2.49
120723CF	LM12CLK	TO-3/4	80W op amp.	20.99	19.99	18.99
16301CF	DS0026CN	DIP-8	Dual mos clk. driver (5MHz)(TC426CPA)	1.59	.99	.89
115318CF	OP27GP	DIP-8	Low noise prec. op amp (-40˚C to 80˚C)	1.95	1.75	1.59
107094CF	LM34CZ	TO-92	Prec. F temp. sensor (-40˚F to +230˚F) ~~$6.95~~	5.49	4.49	4.39
155192CF	LM34DZ	TO-92	Prec. F temp. sensor (+32˚F to +212˚F)	1.79	1.59	1.19
192217CF	LM35DT	TO-220/3	Prec. C temp. sensor (-55˚C to 150˚C)	2.79	2.09	1.49
107107CF	LM35CZ	TO-92	Prec. C temp. sensor (-40˚C to 110˚C)	5.79	4.39	3.19
155740CF	LM35DZ	TO-92	Prec. C temp. sensor (0˚C to +100˚C)	1.75	1.55	1.35
213090CF	TL022CP	DIP-8	Dual low power op amp.	1.59	1.25	.95
213102CF	TL031CP	DIP-8	Enhanced JFET low pwr. low offset op amp.	.72	.65	.53
213111CF	TL032CP	DIP-8	Enhanced JFET low pwr. low offset op amp.	.95	.85	.71
214068CF	TL034CN	DIP-14	Enhanced low power low offset op amp.	1.45	1.19	.95
213129CF	TL052ACP	DIP-8	Enhanced JFET low offset op amp.	4.59	3.65	3.49
213153CF	TL054ACN	DIP-14	Enhanced JFET low offset op amp.	4.99	3.99	3.39
213145CF	TL054CN	DIP-14	Enhanced JFET low offset op amp.	1.59	1.35	.99
213137CF	TL061ACP	DIP-8	Low power JFET input op amp.	.69	.59	.45
33161CF	TL062CP	DIP-8	Low power JFET op amp. (VCC 8-pin)	.29	.26	.20
33179CF	TL064CN	DIP-14	Low power JFET input op amp.	.49	.42	.31
213081CF	TL071ACP	DIP-8	Low noise JFET input op amp.	.49	.44	.36
33187CF	TL071CP	DIP-8	Low noise JFET op amp.	.39	.35	.29
213073CF	TL072ACP	DIP-8	Low noise JFET input op amp.	.45	.38	.35
33195CF	TL072CP*	DIP-8	Low noise JFET dual op amp.	.28	.25	.20
213065CF	TL074BCN	DIP-14	Low noise JFET input op amp.	.78	.70	.59
33216CF	TL074CN*	DIP-14	Low noise JFET quad op amp.	.47	.39	.35
213057CF	TL081ACP	DIP-8	JFET input op amp.	.42	.39	.36
214076CF	TL082ACP	DIP-8	JFET input op amp.	.59	.52	.42
33232CF	TL081CP	DIP-8	JFET input op amp.	.39	.35	.31
33241CF	TL082CP*	DIP-8	JFET input dual op amp.	.49	.45	.39
214084CF	TL084ACN	DIP-14	JFET input op amp.	.73	.53	.47
33267CF	TL084CN*	DIP-14	JFET input quad op amp.	.49	.44	.39
212118CF	LM224N	DIP-14	Low power quad op amp.	.22	.19	.17
24811CF	MAX232CPE*	DIP-16	Dual RS-232 receiver/transmitter	2.19	1.75	1.45
212126CF	LM239N	DIP-14	Low pwr. low offset volt quad comp.	.29	.25	.22
212142CF	LM258N	DIP-8	Low power dual op amp.	.27	.24	.21
212151CF	LM301AN	DIP-8	Operational amplifier	.58	.43	.28
23392CF	LM301N*	DIP-8	Improved op amp.	.39	.35	.29
213188CF	LM306N	DIP-8	Differential comparator w/ strobes	.89	.69	.58
23464CF	LM308N*	DIP-8	Precision op amp.	4.49	3.99	3.49
23499CF	LM309K	TO-3/2	5V 1A regulator (0˚C to +125˚C)	4.95	4.09	3.05
23528CF	LM311N*	DIP-8	Voltage comparator	.35	.25	.19
23608CF	LM318N	DIP-8	Precision hi-speed op amp.	.59	.52	.45
23632CF	LM319N	DIP-14	Hi-speed dual comparator	.45	.40	.31
23667CF	LM323K	TO-3/2	5V 3A positive reg. ~~$3.95~~	3.19	2.78	2.12
212169CF	LM324AN	DIP-14	Low power quad op amp.	.27	.25	.22
23683CF	LM324N**	DIP-14	Low power quad op amp. (ULN4336)	.26	.24	.21
192559CF	LP324N	DIP-14	Micropower quad op amp.	.85	.75	.45
23721CF	LM331N	DIP-8	Prec. volt to freq. convrtr. (150ppm/˚C) ~~$2.95~~	2.55	1.99	1.45
23739CF	LM334Z	TO-92	Adjust current source	.69	.62	.46
120820CF	LM335AZ	TO-92	Precision temperature sensor	.89	.67	.47
23755CF	LM335Z	TO-92	Volt mode temperature sensor ~~$.95~~	.75	.69	.65
23771CF	LM336Z	TO-92	Voltage reference (2.5V)	.69	.49	.39
143888CF	LM339AN	DIP-14	Low power quad comparator	.26	.24	.22
23851CF	LM339N**	DIP-14	Quad comparator	.25	.23	.21
22904CF	LF347N	DIP-14	Quad JFET input op amp. (wide band)	.53	.48	.44

*10 pcs. in Linear series IC cabinet kit, pg 120 **20 pcs. in Linear series IC cabinet kit, pg 120

Call for pricing on quantities over 100 – we carry major manufacturers. **We will special order any IC – 100 Piece Minimum**



Linear Series (Continued)

Package (see above)

✳ Prepackaged: order in increments of 10 or 100

Part No.	Cross Ref.	Pkg.	Description	1	10	100
23915CF	LM348N	DIP-14	Quad 741 op amp. (UPC4741C)	~~$.49~~ $.30	$.26	$.20
22912CF	LF351N	DIP-8	BIFET op amp.	.39	.35	.29
22939CF	LF353N*	DIP-8	Dual BIFET op amp. (comp. w/ TL082CP)	.39	.35	.29
22971CF	LF356N*	DIP-8	JFET input op amp. (wide band)	.79	.69	.59
120862CF	LM358AN	DIP-8	Low power dual op amp. (elect improv.)	.55	.43	.29
23966CF	LM358N*	DIP-8	Low power dual op amp.	~~$.29~~ ✳	.18	.13
24037CF	LM380N	DIP-14	2-watt audio power amp.	.99	.75	.55
24088CF	LM383T	TO-220/5	7-watt audio high power amp.	5.95	5.39	4.95
24096CF	LM384N	DIP-14	5-watt audio amp.	1.70	1.19	.99
120889CF	LM385BZ2.5	TO-92	Volt. ref. diode (2.5V±1.5%)	.50	.48	.43
24109CF	LM385Z	TO-92	Volt. ref. diode (2.5V±3%)	.49	.45	.36
24117CF	LM385Z12	TO-92	Micropower volt. ref. diode (1.2V)	.52	.48	.36
24125CF	LM386N-1*	DIP-8	Low voltage audio amp. 250mW/6V	.39	.35	.29
24133CF	LM386N-3*	DIP-8	Low voltage audio amp. 500mW/9V	.69	.59	.49
120900CF	LM392N	DIP-8	Low pwr. op amp./voltage comparator	.99	.89	.75
212177CF	LM393AN	DIP-8	Low pwr. low offset volt dual comparator	.30	.25	.20
24281CF	LM393N*	DIP-8	Dual comparator	.29	.24	.19
23000CF	LF398N	DIP-8	Sample and hold circuit	~~$2.50~~ 1.59	1.45	1.15
23018CF	LF411CN*	DIP-8	Low offset drift JFET input op amp.	.79	.69	.59
23026CF	LF412CN*	DIP-8	Low offset drift JFET input dual op amp.	1.35	1.19	.99
33347CF	TL431CLP	TO-92	Program precision reference	.25	.19	.13
106681CF	LF442CN	DIP-8	Dual low power JFET input op amp.	.76	.67	.55
119992CF	LF444CN	DIP-14	Quad low power JFET input op amp.	.74	.65	.52
119984CF	LF444ACN	DIP-14	Quad low power JFET input op amp.	3.95	2.99	2.29
33355CF	TL494CN	DIP-16	Control. ckt. pulse width modulated	.79	.69	.59
27422CF	LM555CN**	DIP-8	Timer (MC1455P/NE555V)	.29	.25	.19
126797CF	LMC555CN*	DIP-8	CMOS 555 timer	.54	.49	.44
34930CF	XRL555	DIP-8	Micro power 555 timer	.89	.79	.69
24328CF	LM556N*	DIP-14	Dual 555 timer (MC3456P)	.49	.45	.39
27457CF	NE558N	DIP-16	Quad timer (NE558C)	.69	.52	.36
27473CF	NE564N	DIP-16	High frequency phase locked loop	1.95	1.49	1.05
24352CF	LM565N	DIP-14	Phased locked loop	1.49	1.29	1.19
24395CF	LM567V	DIP-8	Tone decoder	.49	.40	.37
27490CF	NE571N	DIP-16	Compander, subscriber	3.29	2.99	2.69
115174CF	AD620AN	DIP-8	Low cost instrument amplifier	17.95	15.95	14.35
115182CF	AD633JN	DIP-8	Low cost analog multiplier	~~$12.95~~ 7.95	7.55	7.15
143976CF	LMC660CN	DIP-14	CMOS quad operational amp.	1.55	1.39	1.25
120926CF	LM675T	TO-220/5	Power op amp.	6.95	5.25	4.39
214041CF	TL712CP	DIP-8	Differential comparator	1.10	.89	.67
24483CF	LM725CN	DIP-8	Instrumentation op amp.	2.75	1.99	1.45
24491CF	LM733CN	DIP-14	Differential amp.	.99	.89	.79
24521CF	LM741CH	TO-5/8	Op amp.	2.49	1.99	1.79
24539CF	LM741CN**	DIP-8	Op amp. (ULN2151)	.29	.25	.19
24563CF	LM747CN	DIP-14	Dual 741 op amp.	3.99	3.49	2.99
143896CF	LM837N	DIP-14	Low-noise quad operational amp.	1.49	1.35	1.19
25435CF	MC846P	DIP-14	Quad 2-input gate	3.95	2.95	2.25
119706CF	LM1203N	DIP-28	RGB video amp system	2.29	1.75	1.49
24942CF	MC1350P	DIP-8	Video IF amp (12V operation)	1.29	1.19	1.09
23131CF	LM1458N*	DIP-8	Dual op amp. (RC4558)	.29	.26	.20
23157CF	LM1488N*	DIP-14	Quad line driver RS-232 (75188)	.29	.25	.22
16361CF	DS14C88N	DIP-14	Quad CMOS line driver (RS232)	.59	.45	.35
23181CF	LM1489N*	DIP-14	Quad line rec. RS-232 (75189)	.29	.20	.18
16379CF	DS14C89N	DIP-14	Quad CMOS line rec. (RS-232)	.65	.55	.45
118578CF	MC1495L	DIP-14	Linear four quadrant multiplier	9.95	8.95	8.05
23211CF	LM1496N	DIP-14	Balanced mod./demodulator (MC1496P)	.79	.59	.49
23270CF	LM1875T	TO-220/5	20-watt power audio amp.	1.95	1.55	1.25
23288CF	LM1877N-9	DIP-14	Dual power audio amp.	1.55	1.19	.85
107140CF	LM1881N	DIP-8	Video synchronous separator	2.49	1.99	1.49

*10 pcs. in Linear series IC cabinet kit, pg 120 **20 pcs. in Linear series IC cabinet kit, pg 120

Linear Series (Continued)

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
32897CF	TDA2002V	TO-220/5	8-watt audio high power amp.	~~$2.95~~ $1.55	$1.39	$1.15
34278CF	ULN2003A*	DIP-16	Hi-volt/curr. darl. transistor array	.39	.35	.29
34294CF	ULN2004A	DIP-16	Hi-volt/curr. darl. trans. array (XR2204CP)	.32	.29	.25
34972CF	XR2206	DIP-16	Monolithic function generator	3.59	3.29	2.99
34999CF	XR2211	DIP-14	FSK demodulator/tone decoder	1.79	1.59	1.39
39571CF	26LS30	DIP-16	Dual diff RS422 party line Qd RS423 line driv.	2.49	2.25	1.95
39589CF	26LS31	DIP-16	Quad diff line driver	.79	.69	.62
39600CF	26LS32	DIP-16	Quad diff line receiver	.59	.50	.39
34315CF	ULN2803A*	DIP-18	Hi-volt. hi-curr. darl. transistor array	.69	.59	.49
23296CF	LM2901N	DIP-14	Quad comparator	.25	.19	.15
57007CF	LM2902N	DIP-14	Low power quad op amp.	.25	.23	.20
23309CF	LM2903N	DIP-8	Low pwr. low offset volt dual comp.	.20	.17	.135
121005CF	LM2904N	DIP-8	Low power dual op amp.	.23	.21	.19
123625CF	LM2907N-8	DIP-8	Frequency to volt converter	1.95	1.75	1.55
23317CF	LM2907N	DIP-14	Frequency to volt converter	~~$2.75~~ 1.59	1.39	1.08
23350CF	LM2917N-8	DIP-8	Frequency to volt converter	2.45	1.75	1.25
23341CF	LM2917N-14	DIP-14	Frequency to volt converter	1.79	1.49	1.29
12079CF	CA3046N	DIP-14	NPN transistor array (ULN2046)	.49	.44	.39
12116CF	CA3080E	DIP-8	Op transconductance amp. (100135)	.65	.55	.46
12124CF	CA3081N	DIP-16	Common emitter NPN array (ULN2081)	.69	.59	.54
12159CF	CA3086N	DIP-14	Transistor array NPN (ULN2086)	.49	.42	.31
12183CF	CA3130E	DIP-8	CMOS op amp.	~~$1.29~~ .79	.75	.69
12204CF	CA3140E	DIP-8	Bi-MOS op amp.	.72	.65	.54
12239CF	CA3161E	DIP-16	BCD to 7-seg. decoder driver	2.19	1.95	1.75
12247CF	CA3162E	DIP-16	Dual slope & rate analog/digital convert	6.95	5.95	5.25
107238CF	LM3302N	DIP-14	Low pwr. low offset volt quad comp.	.20	.15	.11
212185CF	MC3303N	DIP-14	Quad bipolar op amp.	.45	.39	.29
24168CF	CA3401N	DIP-14	Quad amp (LM3900N) (221-235)	.79	.69	.62
212193CF	MC3403N	DIP-14	Quad bipolar op amp.	.35	.31	.27
25216CF	MC3479P	DIP-16	Biphase stepper motor driver	5.75	5.18	4.65
25232CF	MC3486P	DIP-16	Quad EIA-422/423 line rec. w/ 3-st. outputs	.59	.49	.45
25259CF	MC3487P	DIP-16	Quad EIA-422 line driver w/ 3-state outputs	.69	.59	.45
31974CF	SG3524	DIP-16	Regulating pulse width modulator	.65	.59	.51
126834CF	LM3876T	TO-220/11	40W high perf. audio amp. with mute	4.79	3.89	3.59
192516CF	LM3886T	TO-220/11	68W high perf. audio amp. with mute	5.19	3.95	2.95
24168CF	LM3900N	DIP-14	Quad amp. (CA3401)	.79	.69	.62
24230CF	LM3914N	DIP-18	Bar-graph display driver	2.25	2.02	1.82
24256CF	LM3915N	DIP-18	3 dB steps bar-graph disp. driver	2.49	1.99	1.55
24272CF	LM3916N	DIP-18	VU meter display driver	2.25	1.95	1.75
25275CF	MC4044P	DIP-14	Frequency phase detector (11C44)	9.99	7.49	5.25
29356CF	RC4136N	DIP-14	Quad op amp (XR4136)	.85	.77	.65
29372CF	RC4151NB	DIP-8	Volt to freq. converter (XR4151)	1.29	1.19	1.09
27385CF	NE5532*	DIP-8	Dual low noise op amp.	~~$.69~~ .49	.43	.39
27406CF	NE5534	DIP-8	Low noise op amp.	.79	.69	.59
43801CF	7217AIPI	DIP-28	4-digit LED up/down cntr. (com. cathode)	11.95	10.75	9.69
51140CF	7555IPA	DIP-8	CMOS timer (LM555CN)	.54	.49	.39
51879CF	8038CCPD	DIP-14	Precision wave form generator	3.19	2.49	2.39
213170CF	UA9636A	DIP-8	Dual differential line receiver (MC3488A)	.79	.69	.55
192532CF	LM13700N	DIP-16	Dual op transcon. amp. w/ diodes & buffer	1.49	1.19	.79
25021CF	MC14411P	DIP-24	Bit rate frequency generator	6.95	5.95	4.45
25064CF	MC14490P	DIP-16	Hex contact bounce eliminator	6.95	6.25	5.59
50884CF	75154	DIP-16	Quad line receiver	.69	.59	.45
50930CF	75173	DIP-16	Quadruple differ. line receiver	1.99	1.59	1.19
50948CF	75174	DIP-16	Quad diff. RS-422 line driver w/ 3-state out	1.08	.99	.88
50956CF	75175	DIP-16	Quad diff. EIA 422A/423A line rec. w/3-st.out	1.05	.80	.70
50964CF	75176	DIP-8	Differential bus transceiver	.65	.55	.45
23157CF	75188	DIP-14	Quad line driver RS-232 (LM1488N)	.29	.25	.22
23181CF	75189	DIP-14	Quad line rec. RS-232 (LM1489N)	.29	.20	.18
51027CF	75451	DIP-8	Dual peripheral AND driver	.49	.44	.39

*10 pcs. in Linear series IC cabinet kit, pg 120

Call for pricing on quantities over 100 – we carry major manufacturers. We will special order any IC – 100 Piece Minimum

Linear Series (Continued)

Package (See left)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
51035CF	75452	DIP-8	Dual peripheral NAND driver	$.45	$.34	$.24
51131CF	75492	DIP-14	Hex digit driver (492)	3.29	3.19	2.99
118586CF	MC145151P	DIP-28	Parallel input PLL freq. synthesizer	5.95	5.39	4.85
25099CF	MC145406P	DIP-16	RS232-C/V.28 driv./rec. (CMOS) (75C1406N)	1.95	1.75	1.59
25101CF	MC146818	DIP-24	Real time clock plus RAM	4.95	3.75	3.19

Linear IC Pocket Book



Newnes Publishing Dealing mainly with linear ICs such as op-amps, pre-amplifiers, power amplifiers, signal-conditioner and power supply regulators, as well as various hybrid types; it is also a compilation of circuits that can be built as they appear, adapted or used as building-blocks. (453 pages, 2000) • Size: 3.8" x 7.8" • Weight: 0.8 lbs.

Part No.	Description	Price
200133CF	Linear IC Pocket Book	~~$29.95~~ $24.95

Digital Logic IC Pocket Book SALE



Newnes Publishing A handy reference guide to modern 74 series and 4000 series digital logic ICs presents 620 useful and carefully selected circuits, diagrams, graphs and tables. 185 TTL and CMOS ICs provide detailed information and practical applications. Aimed at design engineers and technicians, this pocket book is also useful to amateurs and students. (400 pages, 1996) • Size: 3.8" x 7.8" • Weight: 0.8 lbs.

Part No.	Description	Price
200141CF	Digital Logic IC Pocket	$24.95



See page 120 for 7400, 74LS, 4000 and Linear Series IC Cabinet Kits.

Dallas Semiconductor

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10	100
114198CF	DS1210	8	Nonvolatile controller chip	$3.95	$3.59	$3.25
114219CF	DS1213C	28	SmartSocket 64K/256k	16.95	15.29	12.19
133410CF	DS1216C	28	Smartwatch/RAM 64K/256k	29.49	27.39	16.45
114331CF	DS1232	8	Micromonitor chip	~~$2.75~~ 2.16	1.95	1.75
133444CF	DS1286	28	Watchdog timekeeper (50-Byte RAM)	21.49	18.29	13.75
76646CF	DS1287	24	Real time clock with RAM (MC146818A)	5.95	5.09	3.79
176778CF	DS1302	8	Trickle charge time keeping IC	2.49	2.25	2.05
114374CF	DS1387	24	RAMified real time clock 4kx8	~~$9.95~~ 8.95	8.15	7.25
114382CF	DS1620	8	Digital thermometer and thermostat	5.49	4.95	3.89
133452CF	DS12887	24	Real time clock chip	6.95	6.25	5.65
114403CF	DS80C320-MCG	40	High speed micro 25MHz	14.95	7.65	7.39

5000 Series and Clock Chips

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	50
32803CF	TCM5089N	16	Integrated tone dialer chip	$4.95	$4.49	$4.05
26091CF	MM5321N	16	TV camera synchronous generator	7.95	6.79	5.09
26171CF	MM5450N	40	34-segment LED display driver	4.95	4.49	4.05
26201CF	MM58167AN	24	Microprocessor real time clock	4.95	4.25	3.19
95530CF	RTC72421B	18	Real time clock module (see above)	6.49	5.69	4.99

EPSON Real Time Clock Module

Dual-In-Line

RTC72421B: 18-Pin Clock Module

- Frequency stability: ±50ppm • Built-in quartz crystal makes board design easy
- Direct bus-compatibility (120 nsec access time) • Interrupt masking
- 30 seconds error adjustment function

Part No.	Product No.	Description	1	10	50
95530CF	RTC72421B	18-pin clock module	$6.49	$5.69	$4.99

Heat Sinks

Heat Sink Compound



Thermally loaded silicone-based grease that improves transfer of energy across the metal to metal interface between transistor or rectifier to heat sink.

- Color: opaque white

Part No.	Product No.	1	10	100
167249CF	THM250 (2 oz.)	$8.95	$7.95	$6.95

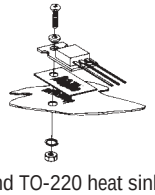
TECHSPRAY Heat Sink Compound 4-Oz. Tube



This silicone-free compound provides more effective heat transfer. Will not harden, dry out, melt, or contaminate wave-solder baths.

Part No.	Product No.	1	10
169252CF	1978DP	$16.95	$14.95

Heat Sink Mounting Kits



34121CF



34139CF

- TO-3 and TO-220 heat sink insulator assemblies
- 10 kits per pack

Part No.	Type	Description	1	10	100
34121CF	TO-220	5 pieces	$3.95	$3.55	$3.19
34139CF	TO-3	12 pieces	~~$4.95~~ 3.95	3.59	3.25

Heat Sinks

Thermalloy IERC AAVID Wakefield

Our TO-3 / TO-218 / TO-220 heat sinks are made from black anodized aluminum (except for P / N 107297CF which is light weight aluminum). They can be mounted horizontally or vertically depending on your applications. P / N 164734CF and 163846CF have mounting clips and some can be mounted vertically with solderable mounting tabs.



16512CF



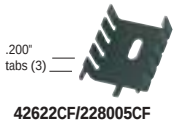
189835CF



151546CF



163846CF



42622CF/228005CF



40504CF



158051CF



70914CF



70658CF



129242CF



107297CF



164734CF

Part No.	Mfr. Cross Reference No.	Type	Watts	Size (L" x W" x H")	Pricing 1	10	100	1000
16512CF	DUDE4	TO-3	30.0	4.8 x 1.5 x 1.3	$2.95	$2.75	$2.49	$2.25
189835CF	635-5B2	TO-3	8.0	1.9 x 1.4 x 0.5	.95	.86	.68	.51
151546CF	635-125B2	TO-3	8.0	1.9 x 1.4 x 1.3	.99	.89	.67	.60
163846CF	THM7021B	TO-218/220	5.0	1.7 x 1.8 x 0.4	.49	.44	.39	.35
42622CF	6030B	TO-220	3.9	1.2 x 1.0 x 0.5	~~$.39~~ .32	.29	.26	.24
228005CF	BK-T220	TO-220	3.9	1.2 x 1.0 x 0.5	.32	.28	.24	.21
40504CF	291-H-36AB	TO-220	2.0	0.9 x 1.0 x 0.4	.89	.79	.69	.59
158051CF	THM6078	TO-220	2.0	.75 x .52 x .38	.39	.35	.29	.25
70914CF	THM6106	TO-220	1.9	1.2 x 1.0 x 0.5	.36	.32	.27	.23
70658CF	THM6073	TO-220	1.6	0.8 x 0.7 x 0.4	.22	.19	.16	.13
129242CF	THM6106	TO-220	1.6	1.2 x 1.0 x 0.5	.49	.45	.39	.35
107297CF	PSC2-U (cup-style)	TO-220	1.5	0.8 x 1.0 x 0.4	.49	.45	.39	.35
164734CF	THM6072	TO-220	5.0	1.4 x 1.8 x 0.4	.49	.45	.39	.35

Color Code Legend: New Sale Dig Save Closeout

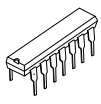
MOTOROLA · FAIRCHILD · SPRAGUE · Siliconix

Call for pricing on quantities over 5000 – we carry major manufacturers.

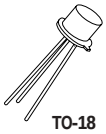
Any transistor may be supplied in ammo style tape by special order – 1000 piece min.

SAMSUNG SEMICONDUCTOR · BOCA Semiconductor Corporation · National Semiconductor · TEXAS INSTRUMENTS

SALE

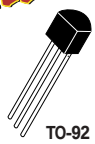

14-pin DIP


TO-3

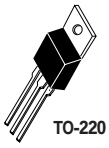

TO-18


TO-39


TO-72


TO-92


TO-126/TO-225


TO-220


TO-237

Semiconductors

✳ Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Case	Desc.	Vceo	Min. h_{FE} @ Ic	Pricing 1	10	100	1000
26462CF	MPSA06	✦	TO-92	NPN	30	50 @ .01A	✳	$.14	$.12	$.11
26489CF	MPSA13	✦	TO-92	NPN	30	5k @ .01A	✳	.11	.10	.09
210593CF	MPSA14	✦	TO-92	NPN	30	20k @ .10A	✳	.045	.032	.021
210681CF	MPSA18	✦	TO-92	NPN	45	500 @ .001A	✳	.06	.036	.024
33021CF	TIP29A	✦	TO-220	NPN	60	15 @ 1A	.49	.45	.41	.37
33030CF	TIP30A	✦	TO-220	PNP	60	15 @ 1A	.54	.50	.45	.37
179346CF	TIP30C	FSC	TO-220	PNP	100	15 @ 1A	.39	.37	.34	.33
33048CF	TIP31A	✦	TO-220	NPN	60	10 @ 3A	.49	.39	.35	.29
179354CF	TIP31C	FSC	TO-220	NPN	100	10 @ 3A	.49	.39	.29	.19
33064CF	TIP32A	✦	TO-220	PNP	60	10 @ 3A	.49	.44	.39	.29
181841CF	TIP32C	✦	TO-220	PNP	100	10 @ 3A	.49	.35	.25	.19
179371CF	TIP41C	FSC	TO-220	NPN	100	15 @ 3A	.55	.39	.30	.28
33081CF	TIP41A	✦	TO-220	NPN	60	15 @ 3A	.55	.44	.33	.23
178546CF	MPSA42	✦	TO-92	NPN	30	40 @ .03A	✳	.10	.07	.05
33101CF	TIP42A	✦	TO-220	PNP	60	15 @ 3A	.55	.45	.39	.25
139580CF	TIP42C	✦	TO-220	PNP	100	15 @ 3A	.49	.45	.39	.25
179389CF	TIP42C	FSC	TO-220	PNP	100	15 @ 3A	.55	.50	.45	.40
210606CF	MPSA56	✦	TO-92	PNP	80	100 @ .10A	✳	.049	.034	.024
210614CF	MPSA64	✦	TO-92	PNP	30	20k @ .10A	✳	.05	.037	.027
120221CF	BPW77	✦	TO-18	NPN	70	—	1.95	1.75	1.49	1.39
178554CF	MPSA92	✦	TO-92	PNP	300	25 @ .003A	✳	.067	.048	.029
214033CF	MPSA93	✦	TO-92	PNP	200	25 @ .03A	✳	.063	.049	.032
32977CF	TIP102	✦	TO-220	NPN	100	1k @ 3A	~~$.65~~ .45	.39	.35	.29
179240CF	TIP102	FSC	TO-220	NPN	100	1k @ 3A	.67	.62	.57	.47
32985CF	TIP106	✦	TO-220	PNP	80	1k @ 3A	.59	.54	.49	.39
179258CF	TIP107	FSC	TO-220	PNP	100	1k @ 3A	.67	.62	.57	.47
32993CF	TIP120	✦	TO-220	NPN	60	1k @ 3A	~~$.65~~ .49	.45	.39	.35
179291CF	TIP120	FSC	TO-220	NPN	60	1k @ 3A	.55	.48	.42	.38
120416CF	TIP122	✦	TO-220	NPN	100	1k @ 3A	~~$.59~~ .38	.32	.22	.17
179303CF	TIP122	FSC	TO-220	NPN	100	1k @ 3A	.58	.43	.29	.26
33013CF	TIP125	✦	TO-220	PNP	60	1k @ 3A	~~$.59~~ .49	.45	.29	.26
179320CF	TIP127	FSC	TO-220	PNP	100	1k @ 3A	.55	.49	.45	.41
211529CF	MJE340	✦	TO-225	NPN	300	30 @ .05A	.30	.28	.23	.216
211537CF	MJE350	✦	TO-225	PNP	300	30 @ .05A	.26	.25	.245	.235
211545CF	MJE700	✦	TO-225	PNP	60	750 @ 1.5A	.28	.25	.235	.228
211553CF	MJE800	✦	TO-225	NPN	60	750 @ 1.5A	.29	.25	.22	.20
194327CF	2N2102	✦	TO-39	NPN	65	40 @ .15A	.39	.35	.29	.25
38228CF	2N2219A	✦	TO-39	NPN	40	100 @ .15A	.59	.49	.45	.39
26446CF	MPQ2222	✦	DIP-14	NPN	40	100 @ .15A	2.25	1.95	1.79	1.65
210665CF	MPS2222	✦	TO-92	NPN	30	30 @ .50A	✳	.054	.038	.036
28628CF	PN2222	✦	TO-92	NPN	30	100 @ .15A	~~$.12~~ ✳	.045	.027	.025
210673CF	MPS2222A	✦	TO-92	NPN	40	40 @ .50A	✳	.07	.055	.045
178511CF	PN2222A	✦	TO-92	NPN	40	100 @ .15A	~~$.16~~ ✳	.09	.06	.04
38236CF	2N2222A	✦	TO-18	NPN	40	100 @ .15A	.39	.35	.29	.25
26526CF	MPS2369	✦	TO-92	NPN	15	20 @ .10A	.29	.25	.18	.12
211334CF	MPS2369A	✦	TO-92	NPN	15	20 @ .10A	.29	.22	.17	.10
194378CF	2N2905A	✦	TO-39	PNP	60	100 @ .15A	.54	.49	.42	.36
26454CF	MPQ2907	✦	DIP-14	PNP	40	100 @ .15A	1.55	1.45	1.35	1.10
28644CF	PN2907	✦	TO-92	PNP	40	100 @ .15A	✳	.13	.12	.11
211342CF	MPS2907A	✦	TO-92	PNP	60	100 @ .15A	✳	.063	.045	.035
178520CF	PN2907A	✦	TO-92	PNP	60	100 @ .15A	~~$.16~~ ✳	.09	.06	.04
38279CF	2N2907A	✦	TO-18	PNP	60	100 @ .15A	.36	.34	.31	.25
211377CF	TIP2955	✦	TO-218	PNP	60	5 @ .001A	1.15	1.05	.96	.78
211502CF	MJ2955A	✦	TO-3	NPN	60	20 @ 4A	1.07	1.00	.96	.78

✳ Prepackaged: order in increments of 10, 100 or 1000

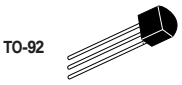
Part No.	Product No.	Mfr.	Case	Desc.	Vceo	Min. h_{FE} @ Ic	Pricing 1	10	100	1000
25831CF	MJE2955T	✦	TO-220	PNP	60	20 @ 4A	$.59	$.53	$.42	$.32
38295CF	2N3053	✦	TO-39	NPN	40	25 @ .15A	.65	.59	.52	.46
211385CF	TIP3055	✦	TO-218	NPN	60	5 @ .001A	1.15	1.05	.96	.78
38308CF	2N3055	✦	TO-3	NPN	60	15 @ 10A	.95	.85	.65	.55
211406CF	2N3055A	✦	TO-3	NPN	60	20 @ 4A	1.18	1.15	1.13	1.03
25857CF	MJE3055T	✦	TO-220	NPN	60	20 @ 4A	~~$.65~~ .52	.49	.44	.39
194415CF	2N3439	✦	TO-39	NPN	350	40 @ .02A	~~$.67~~ .41	.37	.34	.34
194423CF	2N3440	✦	TO-39	NPN	250	40 @ .02A	~~$.58~~ .47	.42	.39	.35
211561CF	MPS3646	✦	TO-92	NPN	15	30 @ .003A	.29	.24	.19	.17
194458CF	2N3700	✦	TO-18	NPN	80	100 @ .15A	~~$.65~~ .54	.49	.44	.36
209242CF	2N3771	✦	TO-3	NPN	40	15 @ 15A	1.99	1.86	1.75	1.40
38324CF	2N3772	✦	TO-3	NPN	40	15 @ 10A	~~$2.29~~ 1.49	1.35	1.19	.99
140151CF	2N3773	✦	TO-3	NPN	140	15 @ 8A	2.49	2.25	1.79	1.35
62279CF	2N3903	✦	TO-92	NPN	40	50 @ .01A	✳	.045	.039	.025
211351CF	MPS3904	✦	TO-92	NPN	40	100 @ .001A	.29	.275	.26	.21
38359CF	2N3904	✦	TO-92	NPN	40	100 @ .01A	✳	.08	.06	.045
178597CF	2N3904	FSC	TO-92	NPN	40	100 @ .01A	✳	.09	.08	.07
62287CF	2N3905	✦	TO-92	PNP	40	50 @ .01A	✳	.054	.037	.024
211369CF	MPS3906	✦	TO-92	PNP	40	100 @ .001A	✳	.10	.08	.055
38375CF	2N3906	✦	TO-92	PNP	40	100 @ .01A	~~$.07~~ ✳	.05	.04	.03
178618CF	2N3906	FSC	TO-92	PNP	40	100 @ .01A	✳	.09	.08	.07
194466CF	2N4033	✦	TO-39	PNP	80	100 @ .10A	~~$.75~~ .69	.59	.49	.39
38404CF	2N4123	✦	TO-92	NPN	30	25 @ .05A	✳	.059	.039	.025
62295	2N4124	✦	TO-92	NPN	25	60 @ .05A	✳	.059	.039	.025
38421CF	2N4401	✦	TO-92	NPN	40	100 @ .15A	✳	.07	.06	.05
38447CF	2N4403	✦	TO-92	PNP	40	100 @ .15A	✳	.08	.07	.05
211511CF	2N4410	✦	TO-92	NPN	80	60 @ .01A	✳	.06	.042	.032
211449CF	2N4918	✦	TO-225	PNP	40	30 @ .50A	.49	.45	.42	.37
211457CF	2N4919	✦	TO-225	PNP	60	30 @ .50A	.36	.34	.32	.30
211465CF	2N4920	✦	TO-225	PNP	80	30 @ .50A	.33	.315	.30	.29
211473CF	2N4921	✦	TO-225	NPN	40	30 @ .50A	.34	.33	.32	.31
211481CF	2N4922	✦	TO-225	NPN	60	30 @ .50A	.35	.33	.29	.265
214623CF	2N4126	✦	TO-92	PNP	25	60 @ .05A	✳	.054	.037	.024
211490CF	2N4923	✦	TO-225	NPN	80	30 @ .50A	.35	.31	.26	.24
210631CF	2N5087	✦	TO-92	PNP	50	250 @ .10A	✳	.055	.038	.028
62316CF	2N5088	✦	TO-92	NPN	30	300 @ .10A	✳	.055	.038	.025
62324CF	2N5089	✦	TO-92	NPN	25	400 @ .10A	✳	.055	.038	.027
38480CF	PN5179	✦	TO-92	NPN	15	25 @ .003A	1.19	1.09	.85	.61
140373CF	2N5179	✦	TO-72	NPN	12	25 @ .003A	.69	.65	.59	.49
209251CF	2N5191	✦	TO-225	NPN	60	25 @ 1.5A	.39	.35	.32	.30
38498CF	2N5192	✦	TO-225	NPN	80	20 @ 1.5A	.35	.34	.31	.289
209269CF	2N5194	✦	TO-225	PNP	60	25 @ 1.5A	.33	.31	.295	.28
38501CF	2N5195	✦	TO-225	PNP	80	20 @ 1.5A	.47	.44	.40	.33
210649CF	2N5401	✦	TO-92	PNP	150	60 @ .01A	✳	.053	.044	.032
210657CF	2N5551	✦	TO-92	NPN	160	80 @ .01A	✳	.07	.045	.034
209277CF	2N5657	✦	TO-126	NPN	350	30 @ .10A	.49	.45	.39	.35
194571CF	2N6042	✦	TO-220	PNP	100	1k @ 3A	.65	.59	.51	.49
194589CF	2N6045	✦	TO-220	NPN	100	1k @ 3A	1.19	.99	.91	.84
194597CF	2N6052	✦	TO-3	PNP	100	750 @ 6A	2.95	2.66	2.39	2.15
194600CF	2N6059	✦	TO-3	NPN	100	750 @ 6A	2.15	1.95	1.79	1.71
194618CF	2N6547	✦	TO-3	NPN	400	12 @ 5A	~~$5.05~~ 3.99	3.79	3.49	3.49
194626CF	2N6678	✦	TO-3	NPN	400	8 @ 15A	6.25	5.63	5.06	4.56
140134CF	2N6725	✦	TO-237	NPN	50	25k @ .2A	.60	.55	.49	.44

✦ Manufacturer varies FSC = Fairchild Semiconductor

Call for pricing on quantities over 5000 – we carry major manufacturers.

J-FET





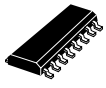
• TO-92 case (except P/N 38341CF: TO-72 case)

✻ Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	Description	BV_{GS} (V)min @ IGuA	Ibss (max) (mA) @ V_{DS}	VP (max) @ V_{DS}	Pricing 1	10	100	1000
210622CF	2N3819	JFET (N-Ch)	25 @ 1	20 @ 15	—	✻	$.09	$.065	$.055
38341CF	2N3823	JFET (N-Ch)	30 @ 1	20 @ 15	8 @ 0.5	1.15	1.05	.95	.89
38527CF	2N5951	JFET (N-Ch)	30 @ 1	13 @ 15	5 @ 100	.99	.89	.79	.69
26403CF	MPF102	JFET (N-Ch)	25 @ 1	20 @ 15	4 @ 0.5	.26	.19	.14	.13
211393CF	J111	JFET (N-Ch)	35 @ 1	20 @ 15	—	.29	.22	.16	.11
140450CF	J112	JFET (N-Ch)	35 @ 1	5.0 @ 15	—	.29	.22	.16	.11
140142CF	J176	JFET (P-Ch)	30 @ 1	2 @ 25	4 @ -15	.59	.55	.49	.45
211414CF	J177	JFET (P-Ch)	30 @ 1	20 @ 15	—	.29	.22	.16	.11

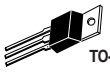


See pages 81 & 82 for
Surface Mount Transistors.



N-Channel MOSFETs





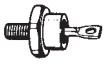
✻ Prepackaged: order in increments of 10, 100 or 1000

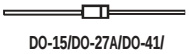
Part No.	Prod. No.	Mfr.	Case	Drain Source Brkdwn Volt.	Min. On-State DS Current	Pricing 1	10	100	1000
178669CF	2N7000	FSC	TO-92	60VDC	0.2A	✻	$.12	$.11	$.10
119423CF	2N7000	✦	TO-92	60VDC	0.3A	$.35 .21	.17	.12	.10
209058CF	BUZ72L	✦	TO-220	100VDC	10.0A	.69	.55	.45	.39
209234CF	IRF510	✦	TO-220	100VDC	5.6A	.53	.48	.39	.34
209226CF	IRF520	✦	TO-220	100VDC	10.0A	.55	.52	.48	.39
210500CF	IRF530	✦	TO-220	100VDC	14.0A	.70	.65	.60	.49
210518CF	IRF540	✦	TO-220	100VDC	27.0A	.81	.73	.54	.51
210526CF	IRF620	✦	TO-220	200VDC	6.0A	.44	.40	.32	.29
210534CF	IRF630	✦	TO-220	200VDC	9.0A	.65	.55	.45	.43
210542CF	IRF640	✦	TO-220	200VDC	18.0A	.99	.92	.85	.69
210551CF	IRF730	✦	TO-220	400VDC	5.5A	.79	.69	.56	.52
210569CF	IRF740	✦	TO-220	400VDC	10.0A	1.25	1.10	.89	.80
210577CF	IRF820	✦	TO-220	500VDC	4.0A	.65	.60	.55	.45
210585CF	IRF830	✦	TO-220	500VDC	4.5A	.77	.70	.62	.58
184719CF	IRF840	✦	TO-220	500VDC	8.0A	$1.59 1.49	1.29	.99	.89

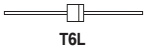
✦ Manufacturer varies FSC = Fairchild Semiconductor

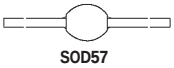
Rectifiers

Rectifiers







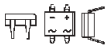


✻ Prepackaged: order in increments of 10, 100 or 1000

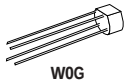
Part No.	Product No.	Mfr.	Case	Description	1	10	100	1000
35924CF	1N1188	✦	DO-5	400 PRV 35A	$2.89	$2.59	$2.35	$2.10
35975CF	1N4001	✦	DO-41	50 PRV, 1A	✻	.03	.025	.02
76961CF	1N4002	✦	DO-41	100 PRV, 1A	✻	.03	.025	.02
76970CF	1N4003	✦	DO-41	200 PRV, 1A	✻	.04	.025	.02
35991CF	1N4004	✦	DO-41	400 PRV, 1A	✻	.04	.025	.02
76988CF	1N4005	✦	DO-41	600 PRV, 1A	✻	.04	.025	.02
76996CF	1N4006	✦	DO-41	800 PRV, 1A	✻	.04	.03	.02
36011CF	1N4007	✦	DO-41	1000 PRV, 1A	✻	.04	.03	.025
227846CF	1N5059	✦	SOD57	200 V_R 2A	✻	.135	.125	.095
227854CF	1N5060	✦	SOD57	400 V_R 2A	✻	.135	.125	.095
227862CF	1N5061	✦	SOD57	600 V_R 2A	✻	.135	.125	.095
227871CF	1N5062	✦	SOD57	800 V_R 2A	✻	.16	.156	.115
214543CF	1N5399	✦	DO-15	1000 PRV, 1.5A	✻	.054	.038	.028
77075CF	1N5400	✦	DO-27A	50 PRV, 3A	✻	.15	.12	.06
36249CF	1N5401	✦	DO-27A	100 PIV, 3A	✻	.14	.11	.06
77083CF	1N5402	✦	DO-27A	200 PRV, 3A	✻	.11	.07	.06
36265CF	1N5404	✦	DO-27A	400 PRV, 3A	$.15 ✻	.11	.07	.055
36273CF	1N5408	✦	DO-27A	1000 PRV, 3A	✻	.15	.11	.08
177949CF	1N5817	✦	DO-204AL	20 PIV, 1A	.19	.17	.16	.13
177957CF	1N5818	✦	DO-204AL	30 PIV, 1A	.24	.20	.16	.15
177965CF	1N5819	✦	DO-204AL	40 PIV, 1A	.19	.17	.16	.13
177973CF	1N5820	✦	DO-201AD	20 PIV, 3A	$.49 .29	.25	.19	.16
177981CF	1N5821	✦	DO-201AD	30 PIV, 3A	.29	.25	.19	.16
177990CF	1N5822	✦	DO-201AD	40 PIV, 3A	.49	.45	.39	.35
177754CF	T6A05L	✦	T6L	50 PIV, 6A	.31	.28	.25	.23
177762CF	T6A10L	✦	T6L	100 PIV, 6A	.31	.28	.23	.20
177818CF	T6A100L	✦	T6L	1000 PIV, 6A	.49	.44	.40	.33
177885CF	UF4002	✦	DO-41	100 PIV, 1A	$.23 ✻	.08	.07	.065
177906CF	UF4004	✦	DO-41	400 PIV, 1A	$.23 ✻	.08	.07	.065
177922CF	UF4006	✦	DO-41	800 PIV, 1A	$.25 ✻	.09	.08	.07

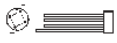
✦ Manufacturer varies

Bridge Rectifiers

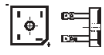


















Part No.	Product No.	Mfr.	Case*	Description	1	10	100	1000
178001CF	DF005M	✦	DF	50 PIV, 1A	$.29	$.27	$.25	$.18
103000CF	DF01M	✦	DF	100 PIV 1A	.39	.35	.29	.22
103042CF	DF02M	✦	DF	200 PIV, 1A	.31	.27	.21	.18
102971CF	DF04M	✦	DF	400 PIV, 1A	$.49 .29	.27	.25	.17
103034CF	DF06M	✦	DF	600 PIV, 1A	.35	.29	.23	.19
145429CF	KBP02M	✦	KBP	200 PIV, 1.5A	.49	.44	.39	.29
119562CF	KBP04M	✦	KBP	400 PIV, 1.5A	.49	.45	.35	.29
103018CF	W02G	✦	W0G	200 PIV, 1.5A	$.49 .32	.30	.22	.19
102980CF	W04G	✦	W0G	400 PIV, 1.5A	.49	.45	.39	.35
102998CF	W06G	✦	W0G	600 PIV, 1.5A	.45	.35	.25	.19
179469CF	W08G	✦	W0G	800 PIV, 1.5A	.69	.59	.49	.39
178124CF	W005M	✦	W0M	50 PIV, 1.5A	.49	.45	.39	.29
178132CF	W01M	✦	W0M	100 PIV, 1.5A	$.49 .32	.30	.22	.19
178141CF	W02M	✦	W0M	200 PIV, 1.5A	$.49 .29	.25	.22	.19
178175CF	W08M	✦	W0M	800 PIV, 1.5A	$.69 .39	.33	.29	.20
178183CF	BR805D	✦	BR8D	50 PIV, 2A	.55	.49	.39	.35
178204CF	BR82D	✦	BR8D	200 PIV, 2A	.85	.77	.69	.62
178247CF	BR810D	✦	BR8D	1000 PIV, 2A	.69	.59	.49	.39
179477CF	GBPC25-01	✦	GBPC	100 PIV, 25A	2.59	2.29	2.09	1.99
179485CF	GBPC25-02	✦	GBPC	200 PIV, 25A	2.79	2.29	1.79	1.49
178280CF	MB254	✦	MB35	400 PIV, 25A	2.49	2.19	1.89	1.69
178335CF	TB252	✦	TB35	200 PIV, 25A	2.10	1.85	1.69	1.50
25574CF	MDA990-3	✦	179-01	200 PIV, 30A	4.49	3.99	3.39	2.89
25591CF	MDA990-6	✦	179-01	600 PIV, 30A	4.95	4.49	3.99	3.59
178431CF	MB358	✦	MB35	800 PIV, 35A	2.95	2.74	2.47	2.22
178440CF	TB3505	✦	TB35	50 PIV, 35A	2.39	2.10	1.89	1.69
178503CF	TB3510	✦	TB35	1000 PIV, 35A	$3.99 3.29	2.55	2.29	2.09

✦ Manufacturer varies

* DF/KBP/W0G/W0M/179-01 – plastic case; GBPC/TB35 – plastic case, metal base; MB35 – metal case

See the yellow and green highlighted items.

Jameco Special Values!

Details on page 3.

Color Code Legend: New Sale Qty Save Closeout

Diac/Triacs/Quadrac


TO-225AA


DO-35


TO-92


TO-220/AB

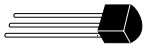

TO-3

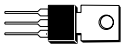
✳ Prepackaged: order in increments of 10, 100 or 1000

Part No.	Prod. No.	Mfr.	Case	Description	1	10	100
140425CF	2N6071A	✦	TO-225AA	Triac, 200 VDRM, 4A	$.49	$.39	$.32
160098CF	HT-32	TEC	DO-35	Diac, 27.37 VBO, 2A	✳	.16	.15
160178CF	L401E3	TEC	TO-92	Triac, 400 VDRM, 1A	.73	.65	.58
220468CF	L4004F31	TEC	TO-220AB	Triac, 400 VDRM, 4A	1.03	.92	.82
160186CF	L4004F51	TEC	TO-220AB	Triac, 400 VDRM, 4A	.95	.85	.76
220450CF	L4004L3	TEC	TO-220AB	Triac, 400 VDRM, 4A	1.30	1.20	1.08
31819CF	SC146B	✦	TO-220	Triac, 200 VDRM, 10A (2N6342)	1.69	1.52	1.37
31827CF	SC146M	✦	TO-220	Triac, 600 VDRM, 10A (2N6344)	1.99	1.69	1.49
160194CF	Q401E3	TEC	TO-92	Triac, 400 VDRM, 1A	.66	.61	.54
160240CF	Q4004LT	TEC	TO-220AB	Quadrac, 400 VDRM, 4A	1.25	1.12	.99
160207CF	Q4008L4	TEC	TO-220AB	Triac, 400 VDRM, 8A	1.34	1.19	1.07
220492CF	Q4008R4	TEC	TO-220AB	Triac, 400 VDRM, 8A	1.23	1.04	.99
139336CF	Q4015L5	✦	TO-220AB	Triac, 400 VDRM, 15A	1.75	1.59	1.35
160143CF	Q4025L6	TEC	TO-220AB	Triac, 400 VDRM, 25A	2.59	2.29	2.08
160215CF	Q6008L3	TEC	TO-220AB	Triac, 600 VDRM, 8A	1.49	1.33	1.19
160231CF	Q6015L5	TEC	TO-220AB	Triac, 600 VDRM, 15A	2.07	1.84	1.65
220513CF	Q6025P5	TEC	TO-3	Triac, 600 VDRM, 25A	8.29	7.39	6.59
220505CF	Q6025R6	TEC	TO-220AB	Triac, 600 VDRM, 25A	2.59	2.29	2.06
220521CF	Q6035P5	TEC	TO-3	Triac, 600 VDRM, 35A	10.99	9.89	8.89

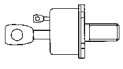
✦ Manufacturer varies TEC = Teccor

Silicon Controlled Rectifiers (SCR)


TO-92


TO-202/AB


TO-220/AB


TO-65

Part No.	Prod. No.	Mfr.	Case	Description	1	10	100	1000
119802CF	2N5060	✦	TO-92	25 PRV, 0.8A	$.29	$.18	$.14	$.12
211422CF	2N5061	✦	TO-92	60 PRV, 0.8A	.29	.18	.14	.12
120070CF	2N5062	✦	TO-92	100 PRV, 0.8A	.35	.25	.20	.15
211431CF	2N5064	✦	TO-92	200 PRV, 0.8A	.35	.25	.20	.15
140417CF	2N6507	✦	TO-220AB	400 PRV, 25A	1.59	1.45	1.29	1.15
14859CF	C38M	✦	TO-65	600 PRV, 35A (2N3899)	6.89	6.19	5.59	5.05
14736CF	C106B1	✦	TO-202	200 PRV, 4A (2N6239)*	.65	.43	.36	.35
14752CF	C122B	✦	TO-220	200 PRV, 8A*	.99	.89	.79	.65
14761CF	C122M	✦	TO-220	600 PRV, 8A*	1.35	1.25	1.05	.69
220484CF	EC103B	TEC	TO-92	200 VDRM, 0.8A	.37	.35	.31	.31
160101CF	EC103D	TEC	TO-92	400 VDRM, 0.8A	.41	.37	.33	.33
220530CF	T106B1	TEC	TO-202AB	200 VDRM, 4A	.59	.53	.48	.48
160119CF	T106D1	TEC	TO-202AB	400 VDRM, 4A	.65	.59	.53	.53
160127CF	S401E	TEC	TO-92	400 VDRM, 1A	.58	.51	.46	.46
220548CF	S4025L	TEC	TO-220AB	400 VDRM, 25A	1.73	1.54	1.38	1.38
160135CF	S6025L	TEC	TO-220AB	600 VDRM, 25A	1.84	1.63	1.47	1.47

*Isolated ✦ Manufacturer varies TEC = Teccor

Transient Voltage Suppressors

SALE

CA: Bidirectional
A: Unidirectional


1.5KE/DO-15

✳ Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Case	Min Brkdwn Volt (V_{BR})	Stand-off Voltage	Pricing 1	10	100	1000
179557CF	1.5KE18A	GSI	1.5KE	17.1	15.3	~~$.39~~ $.35	$.31	$.30	$.29
179629CF	1.5KE43CA	GSI	1.5KE	40.9	36.8	~~$.64~~ .59	.53	.48	.43
179717CF	P6KE15CA	GSI	DO-15	14.3	12.8	~~$.39~~ .18	.17	.15	.14
179733CF	P6KE16CA	GSI	DO-15	15.2	13.3	~~$.39~~ .19	.18	.16	.15
179768CF	P6KE200CA	GSI	DO-15	190	171	.35	.29	.25	.22
179792CF	P6KE33CA	GSI	DO-15	31.4	28.2	.35	.29	.26	.23
179805CF	P6KE39A	GSI	DO-15	37.1	33.3	~~$.33~~ ✳	.19	.17	.14

GSI = General Semiconductor

Any Diode can be special order in ammo-style tape – 1000 piece minimum

Zener Diodes


DO-35/DO-41

Prepackaged: order in increments of 10, 100 or 1000

Part No.	Prod. No.	Mfr.	Case	Description	10	100	500	1000
36290CF	1N751	✦	DO-35	5.1V, 0.5W	~~$.12~~ $.09	$.06	$.05	$.04
178765CF	1N4730A	✦	DO-41	3.9V, 1W	~~$.13~~ .09	.06	.05	.04
178773CF	1N4732A	VSH	DO-41	4.7V, 1W	~~$.13~~ .09	.06	.05	.04
36089CF	1N4732A	✦	DO-41	4.7V, 1W	~~$.12~~ .09	.06	.05	.04
178781CF	1N4733A	VSH	DO-41	5.1V, 1W	~~$.13~~ .09	.06	.05	.04
36097CF	1N4733A	✦	DO-41	5.1V, 1W	~~$.12~~ .09	.06	.05	.04
178790CF	1N4734A	VSH	DO-41	5.6V, 1W	~~$.13~~ .09	.06	.05	.04
36118CF	1N4734A	✦	DO-41	5.6V, 1W	~~$.25~~ .09	.06	.05	.04
178802CF	1N4735A	VSH	DO-41	6.2V, 1W	~~$.13~~ .09	.06	.05	.04
36126CF	1N4735A	✦	DO-41	6.2V, 1W	~~$.12~~ .09	.06	.05	.04
178811CF	1N4737A	✦	DO-41	7.5V, 1W	~~$.13~~ .09	.06	.05	.04
178829CF	1N4738A	✦	DO-41	8.2V, 1W	~~$.13~~ .09	.06	.05	.04
178837CF	1N4739A	✦	DO-41	9.1V, 1W	~~$.13~~ .09	.06	.05	.04
178845CF	1N4740A	✦	DO-41	10V, 1W	~~$.13~~ .09	.06	.05	.04
178853CF	1N4742A	VSH	DO-41	12V, 1W	~~$.13~~ .09	.06	.05	.04
36169CF	1N4742A	✦	DO-41	12V, 1W	~~$.12~~ .09	.06	.05	.04
178861CF	1N4744A	VSH	DO-41	15V, 1W	~~$.13~~ .09	.06	.05	.04
36185CF	1N4744A	✦	DO-41	15V, 1W	~~$.12~~ .09	.06	.05	.04
178870CF	1N4746A	✦	DO-41	18V, 1W	~~$.13~~ .09	.06	.05	.04
178888CF	1N4747A	✦	DO-41	20V, 1W	~~$.13~~ .09	.06	.05	.04
178896CF	1N4748A	✦	DO-41	22V, 1W	~~$.13~~ .09	.06	.05	.04
178909CF	1N4749A	✦	DO-41	24V, 1W	~~$.13~~ .09	.06	.05	.04
183450CF	1N4750A	✦	DO-41	27V, 1W	~~$.25~~ .09	.06	.05	.04
179004CF	1N5225B	✦	DO-35	3.0V, 0.5W	~~$.12~~ .04	.035	.03	.027
179021CF	1N5229B	✦	DO-35	4.3V, 0.5W	~~$.10~~ .04	.035	.03	.027
179039CF	1N5230B	✦	DO-35	4.7V, 0.5W	~~$.10~~ .04	.035	.03	.027
179047CF	1N5231B	✦	DO-35	5.1V, 0.5W	~~$.10~~ .04	.035	.03	.027
179055CF	1N5232B	✦	DO-35	5.6V, 0.5W	~~$.10~~ .04	.035	.03	.027
179063CF	1N5234B	✦	DO-35	6.2V, 0.5W	~~$.10~~ .04	.035	.03	.027
179071CF	1N5239B	✦	DO-35	9.1V, 0.5W	~~$.10~~ .04	.035	.03	.027
179080CF	1N5241B	✦	DO-35	11V, 0.5W	~~$.10~~ .04	.035	.03	.027
179098CF	1N5242B	✦	DO-35	12V, 0.5W	~~$.10~~ .04	.035	.03	.027
179101CF	1N5245B	✦	DO-35	15V, 0.5W	~~$.10~~ .04	.035	.03	.027
179119CF	1N5246B	✦	DO-35	16V, 0.5W	~~$.10~~ .04	.035	.03	.027
179127CF	1N5248B	✦	DO-35	18V, 0.5W	~~$.10~~ .04	.035	.03	.027
179135CF	1N5250B	✦	DO-35	20V, 0.5W	~~$.10~~ .04	.035	.03	.027

✦ Manufacturer varies VSH= Vishay

Diodes


151247CF

DO-7/DO-35

✳ Prepackaged: order in increments of 10, 100 or 1000

Part No.	Prod. No.	Mfr.	Case	Description	1	10	100	1000
35941CF	1N270	✦	DO-7	80 PRV (Germanium)	$.75	$.69	$.59	$.49
179207CF	1N914	VSH	DO-35	100 PRV (Switching)	✳	.06	.05	.04
36311CF	1N914	✦	DO-35	75 PRV,.01A (Switching)	✳	.027	.017	.009
35967CF	1N3600	✦	DO-35	50 PRV,.20A (Switching)	~~$.14~~ ✳	.12	.10	.08
179215CF	1N4148	VSH	DO-35	100 PRV (Switching))	✳	.05	.04	.02
36038CF	1N4148	✦	DO-35	75 PRV,.01A (Switching)	✳	.04	.03	.025
151247CF	1N4148T	✦	DO-35	75 PRV,.01A (Switching)	#	#	#	.02

✦ Manufacturer varies VSH = Vishay # Taped-ammo style: order in increments of 1000



See page 121 for Diode and Transistor Assortment Cabinet Kits.

Jameco's Low-Price Guarantee

We'll match the advertised price of any like product.
It's that simple!

Call for pricing on large quantities – we carry major manufacturers. We will special order any IC – 100 Piece Minimum

4000 Series

SOIC

Part No.	Cross Ref.	Pins	Description	1	10	100
197261CF	CD4001M	14	Quad 2-input NOR gate	$.29	$.24	$.19
197270CF	CD4011M	14	Quad 2-input NAND gate	.29	.24	.19
197288CF	CD4013M	14	Dual D flip-flop with set/reset	.29	.24	.19
197296CF	CD4017M	16	Decade counter/divider	.49	.39	.29
197309CF	CD4020M	16	14-stage binary/ripple counter	.49	.39	.29
197317CF	CD4027M	16	Dual JK master-slave flip-flop	.39	.35	.29
197325CF	CD4029M	16	Presettable up/down counter	.49	.44	.39
197333CF	CD4040M	16	12-stage binary/ripple counter	.29	.25	.22
197341CF	CD4049M	16	Hex/buffer/converter (inverting)	.35	.29	.24
197350CF	CD4050M	16	Hex/buffer/converter (N-inverting)	.29	.25	.19
197368CF	CD4051M	16	Single 8-channel multi./demultiplexer	.39	.35	.29
197376CF	CD4066M	14	Quad bilateral switch	.29	.24	.19
197384CF	CD4069M	14	Hex inverter (74C04)	.29	.24	.19
197392CF	CD4071M	14	Quad 2-input OR gate	.29	.24	.19
197405CF	CD4081M	14	Quad 2-input AND gate	.29	.24	.19
197413CF	CD4093M	14	Quad 2-input NAND Schmitt trigger	.29	.24	.19
197421CF	CD4511M	16	BCD to 7-seg. latch/decoder/driver	.49	.45	.39
197430CF	CD4538M	16	Dual precision monostable multivibrator	.69	.48	.43
197448CF	CD4584M	14	Hex Schmitt trigger (74C14) 40106	.29	.24	.19

74HC Series

SOIC

Part No.	Cross Ref.	Pins	Description	1	10	100
197106CF	74HC00M	14	Quad 2-input NAND gate	$.32	$.26	$.23
197122CF	74HC04M	14	Hex inverter (buffered)	.29	.24	.19
197131CF	74HC08M	14	Quad 2-input AND gate	.32	.26	.23
197149CF	74HC14M	14	Hex inverter Schmitt trigger	.32	.26	.23
197157CF	74HC32M	14	Quad 2-input OR gate	.29	.26	.23
197165CF	74HC74M	14	Dual D flip-flop	.38	.29	.26
197173CF	74HC138M	14	3-to-8 decoder/demultiplexer	.35	.29	.25
197181CF	74HC164M	14	8-bit serial shift register	.39	.35	.29
197190CF	74HC165M	16	Parallel load 8-bit serial shift register	.35	.31	.26
197202CF	74HC244M	20	Octal driver tri-state	.49	.41	.31
197211CF	74HC245M	20	Octal transceiver tri-state	.49	.41	.31
197229CF	74HC373M	20	Octal D-type flip-flop tri-state	.49	.39	.29
197237CF	74HC374M	20	Octal D-type flip-flop edge-trig tri-state	.49	.39	.29
197245CF	74HC573M	20	Octal D-type flip-flop tri-state	.49	.39	.29
197253CF	74HC574M	20	Octal D-type flip-flop tri-state	.49	.39	.29

74LS Series

SOIC

Part No.	Cross Ref.	Pins	Description	1	10	100
198361CF	74LS00M	14	Quad 2-input NAND gate	$.29	$.24	$.19
198379CF	74LS02M	14	Quad 2-input NOR gate	.29	.24	.19
198387CF	74LS04M	14	Hex inverter	.29	.24	.19
198395CF	74LS05M	14	Hex inverter (O.C.)	.29	.24	.19
198408CF	74LS07M	14	Hex buffer/driver (O.C. hi-voltage)	.59	.49	.45
198416CF	74LS08M	14	Quad 2-input AND gate	.29	.24	.19
198424CF	74LS10M	14	Triple 3-input NAND gate	.29	.24	.19
198432CF	74LS11M	14	Triple 3-input AND gate	.29	.24	.19
198441CF	74LS14M	14	Hex inverter schmitt trigger	.29	.24	.19
198459CF	74LS20M	14	Dual 4-input NAND gate	.29	.24	.19
198467CF	74LS30M	14	8-input NAND gate	.29	.24	.19
198475CF	74LS32M	14	Quad 2-input OR gate	.29	.24	.19
198491CF	74LS74M	14	Dual D flip-flop	.29	.24	.19
198504CF	74LS75M	16	4-bit bi-stable latch	.39	.35	.29
198512CF	74LS85M	16	4-bit magnitude comparator	.39	.35	.29
198521CF	74LS86M	14	Quad EXCLUSIVE-OR gate	.39	.35	.29
198539CF	74LS90M	14	Decade counter	.49	.39	.29
198547CF	74LS93M	14	4-bit binary counter	.99	.89	.75
198555CF	74LS123M	16	Dual mono. multivibrator with clear	.49	.39	.29
198563CF	74LS138M	16	3 to 8 decoder/demultiplexer	.39	.35	.29
198571CF	74LS151M	16	8-input multiplexer	.39	.35	.29
198580CF	74LS157M	16	Quad 2/1 data selector	.39	.35	.29
198598CF	74LS193M	16	Binary up/down counter with clear	.49	.45	.39
198619CF	74LS240M	20	Octal invert. line driver tri-state	.49	.45	.39
198627CF	74LS244M	20	Octal driver tri-state	.39	.34	.29
198635CF	74LS245M	20	Octal bus transceiver tri-state	.39	.34	.29
198643CF	74LS273M	20	Octal D-type flip-flop with clear	.39	.34	.29
198651CF	74LS373M	20	Octal D flip-flop tri-state	.39	.34	.29
198660CF	74LS374M	20	Octal D F/F edge-trig tri-state	.39	.34	.29

Linear Series

SOIC

Part No.	Cross Ref.	Pins	Description	1	10	100
193480CF	LM34DM	8	Prec. F temp. sensor (-55˚F to 300˚F)	$1.49	$1.35	$1.10
193498CF	LM35DM	8	Prec. C temp. sensor (-55˚C to 150˚C)	1.99	1.49	1.10
193501CF	TL072CD	8	Low noise JFET dual op amp.	.45	.39	.25
193519CF	TL074CD	8	Low noise JFET quad op amp.	.44	.37	.33
193527CF	TL082CD	8	JFET input dual op amp.	.37	.31	.29
193535CF	TL084CD	14	JFET input quad op amp.	.49	.45	.39
193543CF	LM311D	8	Voltage comparator	.24	.21	.19
86721CF	LM324D	14	Low power quad op amp.	.29	.21	.18
193560CF	LM335M	8	Precision temperature sensor	.99	.89	.79
193578CF	LM336M-2.5	8	Precision 2.5V shunt regulator diode	.69	.59	.49
193594CF	LM339M	14	Low pwr. low offset volt quad comparator	.29	.24	.19
193607CF	LF356M	8	JFET input op amp. (wide band)	.59	.54	.49
193615CF	LM358D	8	Low power dual op amp.	.29	.19	.16
193623CF	LM386M-1	8	Low volt. audio power amp. 250mW/12V	.24	.22	.21
193631CF	LM393D	8	Low power offset voltage dual comparator	.29	.24	.19
193640CF	LF412CD	8	Low offset drift JFET input dual op amp.	.79	.66	.53
86799CF	LM555CM	8	Timer (NE555D)	.29	.25	.22
193658CF	LM556CM	14	Dual 555 timer	.39	.35	.29
193666CF	LM567CM	8	Tone decoder ~~$.69~~	.39	.35	.29
193682CF	LM1458M	8	Dual op amp.	.29	.24	.18
193691CF	LM1488D	14	Quad line driver (RS-232)	.29	.25	.22
193703CF	LM1489D	14	Quad line receiver (RS-232)	.29	.25	.22
193826CF	ULN2003AD	16	Hi-volt/curr. darl. transistor array	.39	.35	.29
193738CF	NE5532D	16	Dual low noise op amp.	.45	.39	.35
193746CF	NE5534D	8	Low noise op amp.	.32	.29	.26

MAX232

SOIC

Part No.	Cross Ref.	Pins	Description	1	10	100
106147CF	MAX232CWE	16	+5V pwred, dual RS-232 trans./receiver	$1.95	$1.75	$1.59

Voltage Regulators

SOIC

Part No.	Cross Ref.	Pins	Description	1	10	100
193551CF	LM317LM	8	100mA adj. pos. regulator (1.2V to 37V)	$.32	$.28	$.21
193586CF	LM337LM	8	1.5A adj. neg. regulator (-1.2V to -37V)	.79	.69	.59
214050CF	LM723CD	14	High precision voltage regulator	.34	.32	.30
193754CF	78L05ACM	8	5V 100mA pos. voltage regulator	.29	.25	.22
193762CF	78L06ACM	8	6.2V 100mA pos. voltage regulator	.29	.25	.22
193771CF	78L12ACM	8	12V 100mA pos. voltage regulator	.29	.25	.22
193789CF	78L15ACM	8	15V 100mA pos. voltage regulator	.25	.22	.19
193797CF	79L05ACM	8	-5V 100mA neg. voltage regulator	.35	.29	.25
193800CF	79L12ACM	8	-12V 100mA neg. voltage regulator	.35	.29	.25
193818CF	79L15ACM	8	-15V 100mA neg. voltage regulator ~~$.35~~	.29	.25	.22

Transistors

SOT-23 SOIC-16

✳ Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.✦	Case	Desc.	Vceo	Min. (h_{FE} @ Ic)	1	10	100	1000
214834CF	MMBTA05	SOT-23	NPN	60	— ✳	$.067	$.045	$.03	
214842CF	MMBTA06	SOT-23	NPN	80	100 @ .01A ✳	.057	.048	.038	
214851CF	MMBTA13	SOT-23	NPN	30	5k @ .01A ✳	.057	.039	.026	
214869CF	MMBTA14	SOT-23	NPN	30	10k @ .01A ✳	.059	.039	.024	
214885CF	MMBTA42	SOT-23	NPN	300	40 @ .01A ✳	.065	.057	.047	
214906CF	MMBTA55	SOT-23	PNP	60	100 @ .01A ✳	.056	.038	.024	
214914CF	MMBTA56	SOT-23	PNP	80	100 @ .01A ✳	.085	.058	.04	
214922CF	MMBTA63	SOT-23	PNP	30	5k @ .01A ✳	.056	.038	.025	
214931CF	MMBTA64	SOT-23	PNP	30	10k @ .01A ✳	.056	.038	.025	
214957CF	MMBTA92	SOT-23	PNP	300	40 @ .01A ✳	.113	.074	.049	
213920CF	MMBT918	SOT-23	NPN	15	20 @ .003A ✳	.043	.029	.018	
94941CF	MMBT2222	SOT-23	NPN	30	100 @ .15A ~~$.29~~	.22	.19	.15	.12
213938CF	MMBT2222A	SOT-23	NPN	40	100 @ .15A ✳	.054	.045	.029	
213997CF	MMPQ2222A	SOIC-16	NPN	40	100 @ .15A .87	.81	.75	.57	
214658CF	MMBT2369	SOT-23	PNP	25	60 @ .05A ✳	.04	.027	.017	
213946CF	MMBT2369A	SOT-23	NPN	15	40 @ .01A ✳	.039	.027	.017	
94959CF	MMBT2907	SOT-23	PNP	40	100 @ .15A ~~$.29~~	.22	.19	.15	.12
213954CF	MMBT2907A	SOT-23	PNP	60	100 @ .01A ✳	.038	.03	.02	
214009CF	MMPQ2907A	SOIC-16	PNP	60	100 @ .01A .99	.92	.81	.56	

✦ Manufacturer varies

Continued on next page.

SMT

Transistors (Continued)

SOT-23 SOIC-16

✳ Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.✦	Case	Desc.	Vceo	Min. (h_{FE} @ Ic)	1	10	100	1000
94967CF	MMBT3904	SOT-23	NPN	40	100 @ .01A	~~$.29~~ ✳	$.045	$.035	$.03
94975CF	MMBT3906	SOT-23	PNP	40	100 @ .01A	~~$.29~~ ✳	.045	.035	.03
214017CF	MMPQ3906	SOIC-16	PNP	40	75 @ .01A	.89	.79	.71	.53
214674CF	MMBT4124	SOT-23	NPN	25	60 @ .05A		.055	.037	.024
214682CF	MMBT4126	SOT-23	PNP	25	60 @ .05A	✳	.053	.037	.024
214703CF	MMBT4401	SOT-23	NPN	40	80 @ .01A	✳	.057	.038	.029
214720CF	MMBT4403	SOT-23	PNP	40	60 @ .001A	✳	.076	.049	.035
213962CF	MMBT5087	SOT-23	PNP	50	250 @ .01A	✳	.049	.036	.027
213971CF	MMBT5088	SOT-23	NPN	30	300 @ .01A	✳	.04	.027	.017
214746CF	MMBT5089	SOT-23	NPN	25	400 @ .01A	✳	.039	.027	.017
214754CF	MMBT5401	SOT-23	PNP	150	40 @ .001A	✳	.053	.039	.029
214762CF	MMBT5550	SOT-23	NPN	140	60 @ .01A	✳	.049	.034	.022
214771CF	MMBT5551	SOT-23	NPN	140	80 @ .01A	✳	.063	.045	.039
213989CF	MMBT6427	SOT-23	NPN	40	10k @ .01A	✳	.063	.057	.028
214789CF	MMBT6428	SOT-23	NPN	50	250 @ .01A	✳	.04	.027	.017
214025CF	MMPQ6700	SOIC-16	NPN/PNP	40	70 @ .01A	.73	.70	.65	.51

✦ Manufacturer varies

Diode

DL-35

Prepackaged: order in increments of 100 or 1000

Part No.	Mfr. Cross Ref. No.	Description	100	1000
94908CF	1N4148SM	75 PRV @ 50µA, 10mA	~~$.05~~ $.03	$.025

Vacuum Tweezers

Pick & place small parts of all kinds: glass slides, coins, optics, SMDs, film, etc.

- Size: 2.9"L x 0.6"W • One-year warranty

Includes: 5 pads sizes 0.14" to 0.4"; 5 straight tips and 2 pieces 45° angle tips



Part No.	Description	1	10
88268CF	Vacuum pick & place kit	~~$34.95~~ $29.95	$26.95

4-Piece Conductive SMD Tweezer Set

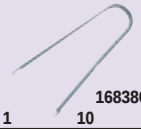
- 4 types of tweezers: fine point, flat head for 4mm SMD chip device, flat head for 8mm SMD chip device, sharp angled tip • Each is 4.5" long



Part No.	Description	1	10	25
172638CF	4-piece conductive SMD tweezer set	$11.95	$10.95	$9.95

PLCC Surface Mount and DIP IC Extractors


16766CF


16838CF

- Size: 4.0"L x 2.0"W (both)

Part No.	Product No.	Description	1	10	100
16766CF	HT103B	PLCC IC extractor	$3.95	$3.55	$3.19
16838CF	HT103A	DIP IC extractor	1.49	1.25	1.09

CHIPQUIK SMD 2000 Removal System

Complete Solder/Desolder Rework Kit



- Removal alloy, solder paste, 3' solder, paste flux, liquid flux remover/cleaner, handi vac, 2 acid brushes, precision tweezers, six 4" x 4" cleaning wipes, 10 swabs, 6 alcohol pads, SMD removal/clean up instructions, stainless steel probe kit & 5' solder wick

Part No.	Description	1	10
208055CF	SMD 2000 removal system	~~$109.95~~ $99.95	$94.99

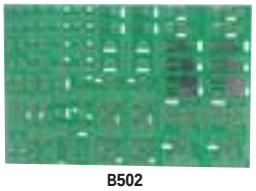
CHIPQUIK SMD Removal Kit



- Quick and easy to use
- Potential damage to printed circuit boards is eliminated
- 2.5' of CHIPQUIK® material removes 1250-1500 SMD pins
- Uses simple equipment and materials for application & clean-up

Part No.	Description	1	10
141305CF	SMD removal kit	$21.95	$19.75

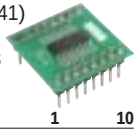
Surface Mount Proto Boards


B502

Prototyping SMT circuit boards has been tedious and time-consuming because surface mount devices are so small. Now there is an easy, cost-effective and versatile Snap-Apart solution from Bellin Dynamic Systems.

BELLIN DYNAMIC SYSTEMS, INC.

- Quality silk-screened and solder-masked boards
- V-groove scoring between elements for smooth straight edges
- Compatible with .100" single or dual row male headers (see pg 141)
- Size: 7.6"L x 5.0"W • Board thickness: 0.031"
- See our website (www.Jameco.com) for additional specifications



Small SMT

Part No.	Prod. No.	Description	1	10
215491CF	B502	160 SMT pattern, SOT/SOIC/TSOP/MSOP/DPAK & more	$45.95	$41.35
227344CF	B513	300 SMT pattern, SC90, SOT23-6, 323-6, TSOP, MSOP8, 10+	45.95	41.35

SOIC

215520CF	B505	60 SOIC SMT pattern, SOIC 8, 14, 16, 24, 32, 40 & more	$45.95	$41.95
227310CF	B510	140 SMT pattern, SOIC 8 to DIP .300" width	45.95	41.35
227328CF	B511	63 SMT pattern, SOIC nrw/wd 8, 14, 16, 18. 20 to DIP .300"	45.95	41.35
227352CF	B514	72 SMT pattern, SOIC narrow 8, 14, 16, 18. 20 to DIP .300"	45.95	41.35
227361CF	B515	30 SMT pattern, SOIC 24, 28, 32 to DIP .600" width	45.95	41.35

Fine Pitch Dual Row

215503CF	B503	34 SMT pattern, SOIC/QSOP/TSOP/MSOP/TSSOP & more	$45.95	$41.35
227281CF	B507	40 SMT pattern, SSOP/TSSOP 16, 20, 32, 40 & more	45.95	41.35

Quad

215511CF	B504	25 SMT pattern, QFP32, 44, 48, 52, 54, 64, 70, 80, 100 PLCC18, 20, 28, 32, 44	$45.95	$41.35
227336CF	B512	24 SMT pattern, PLCC18, 20, 22, 28, 32, 44, 52, 68, 84 & 100	45.95	41.35

PCB Connector (0.062" thick through-hole)

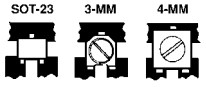
227272CF	B506	45 SMT pattern, USB A, B/1394/RJ11, 12, 45/DB9 PCB conn.	$45.95	$41.35

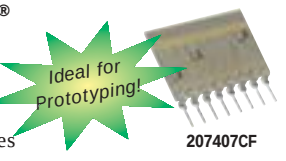
PitchStick™ B508



227299CF	B508	20 SMT pattern, 48 inline pads, metric/rare pitches	$45.95	$41.35
227301CF	B509	20 SMT pattern, 48 inline pads, 50 & 25 mil pitches	45.95	41.35

Surfboards®





207407CF

Mini Breadboards for Surface Mount Devices

6000/6100 Series for Discrete Devices

- Universal large foil pattern areas accept a wide range of device footprints or can be modified to accept new footprints • 0.1" pin spacing • Height: 0.5"

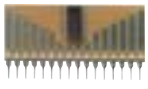
Part No.	Product No.	Pins	Width	1	10
207423CF	6103	3	0.3"	$1.25	$1.09
207407CF	6008	8	0.8"	2.15	1.89
207431CF	6109	9	0.9"	2.25	1.99
207415CF	6010	10	1.0"	2.29	1.95

9000 Series for ICs

- Adapt SMD to thru-hole
- Size: 1.20"W x 0.65"H

207378CF/207394CF: 0.1" pin spacing


207360CF


207394CF

Part No.	Product No.	1	10
207360CF	9081 (For 8-pin SOIC)	$1.25	$1.05
207378CF	9082 (For 8-pin SOIC)	3.55	3.10
207386CF	9161 (For 14/16-pin SOIC)	1.75	1.50
207394CF	9163 (For 14/16-pin SOIC)	5.45	4.79

Application Specific Adapters

33000 series SURFBOARDS® convert SMD component footprints to SIP format. Compatible with conventional and solderless breadboards & sockets (.100" center pins).


207589CF

Part No.	Product No.	Accepted Devices	Pins	1	10
207589CF	33205	SOT-23-5/SC59-5	5	$1.55	$1.39
207597CF	33206	SOT-23-6/SOT-23-L/SC-59-6/TSOP-6	6	1.75	1.54



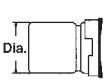
193009CF Tape and Reel



193009CF

Aluminum Electrolytic Capacitors

Operating temperature range	-40˚C to +85˚C
Leakage Current (20˚C) after 2 minutes	1≤ .01CV or 3µA



Side View



Bottom View

✳ Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref No.†	Value (µF)	Voltage	Dia. (mm)	Pricing 1	10	100	500
193228CF	SE1/50	1	50	4.0	✳	$.25	$.19	$.16
193236CF	SE2.2/50	2.2	50	4.0	.39	.35	.29	.25
193244CF	SE3.3/50	3.3	50	4.0	✳	.22	.17	.14
193076CF	SE427/25	4.7	25	4.0	✳	.29	.24	.16
193252CF	SE4.7/50	4.7	50	5.0	✳	.16	.14	.12
192997CF	SE10/16	10	16	4.0	✳	.29	.26	.22
193084CF	SE10/25	10	25	5.0	✳	.29	.24	.16
193164CF	SE10/35	10	35	5.0	✳	.26	.22	.19
193261CF	SE10/50	10	50	6.3	✳	.19	.16	.14
192891CF	SE22/6.3	22	6.3	4.0	✳	.29	.24	.16
193009CF	SE22/16	22	16	5.0	✳	.29	.24	.16
193092CF	SE22/25	22	25	6.3	✳	.39	.29	.25
193172CF	SE22/35	22	35	6.3	✳	.19	.16	.14
193279CF	SE22/50	22	50	6.3	✳	.26	.22	.19
193017CF	SE33/16	33	16	5.0	✳	.29	.25	.20
193105CF	SE33/25	33	25	6.3	✳	.22	.19	.17
193181CF	SE33/35	33	35	8.0	✳	.29	.24	.21
193287CF	SE33/50	33	50	8.0	✳	.30	.25	.22
193025CF	SE47/16	47	16	6.3	✳	.33	.28	.23
193113CF	SE47/25	47	25	6.3	.39	.35	.29	.25
193199CF	SE47/35	47	35	6.3	✳	.29	.25	.19

✳ Prepackaged: order in increments of 10, 100 or 1000

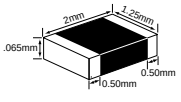
Part No.	Mfr. Cross Ref. No.†	Value (µF)	Voltage	Dia. (mm)	Pricing 1	10	100	500
193295CF	SE47/50	47	50	10.0	✳	$.45	$.39	$.35
192903CF	SE100/6.3	100	6.3	6.3	✳	.39	.29	.25
192954CF	SE100/10	100	10	6.3	✳	.19	.16	.14
193033CF	SE100/16	100	16	8.0	✳	.45	.39	.32
193121CF	SE100/25	100	25	8.0	✳	.35	.28	.24
193201CF	SE100/35	100	35	10.0	.39	.35	.31	.26
193308CF	SE100/50	100	50	10.0	✳	.52	.45	.39
192911CF	SE220/6.3	220	6.3	6.3	✳	.29	.26	.23
192962CF	SE220/10	220	10	8.0	✳	.37	.29	.25
193041CF	SE220/16	220	16	8.0	✳	.39	.35	.29
193130CF	SE220/25	220	25	10.0	✳	.59	.49	.43
193210CF	SE220/35	220	35	8.0	.55	.45	.39	.35
193316CF	SE220/50	220	50	10.0	✳	.59	.49	.39
193050CF	SE330/16	330	16	10.0	.49	.44	.39	.34
193148CF	SE330/25	330	25	8.0	✳	.55	.45	.39
192920CF	SE470/6.3	470	6.3	8.0	.69	.59	.49	.45
192971CF	SE470/10	470	10	10.0	✳	.39	.35	.32
193068CF	SE470/16	470	16	10.0	✳	.55	.45	.39
193156CF	SE470/25	470	25	10.0	✳	.55	.49	.47
192938CF	SE1000/6.3	1000	6.3	10.0	.55	.45	.39	.35
192989CF	SE1000/10	1000	10	10.0	✳	.59	.49	.45
192946CF	SE1500/6.3	1500	6.3	10.0	.69	.55	.49	.44

† **Cross Reference: Panasonic:** VS Series

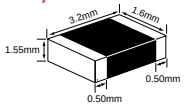
SMT

Multilayer Ceramic Chip Capacitors

Any surface mount Ceramic Chip Capacitor may be special ordered – 3000 piece minimum.



0805 SMT CASE



1206 SMT CASE

X7R SERIES (±10%)

0805 SMT Case			Pricing per each				
			100 pc.	Pricing			
Part No.	Capacitance	Volt.	Incremnt	500	1000	3000	5000
87311CF	.01µF	50	$.12	$.09	$.07	$.065	$.06
87370CF	.1µF	25	.14	.11	.08	.06	.05

1206 SMT Case			Pricing per each				
			100 pc.	Pricing			
Part No.	Capacitance	Volt.	Incremnt	500	1000	3000	5000
87329CF	.01µF	50	$.15	$.069	$.047	$.045	$.042
87388CF	.1µF	50	.19	.17	.15	.11	.10
87396CF	.22µF	25	.25	.22	.19	.15	.14

Z5U SERIES (±20%)

0805 SMT Case			Pricing per each			
			100 pc.	Pricing		
Part No.	Capacitance	Voltage	Incremnt	500	1000	5000
87177CF	.1µF	50	~~$.12~~ $.037	$.033	$.028	$.026

1206 SMT Case			Pricing per each			
			100 pc.	Pricing		
Part No.	Capacitance	Voltage	Incremnt	500	1000	5000
87185CF	.1µF	50	$.08	$.06	$.05	$.04
87206CF	.22µF	50	.09	.06	.05	.04
87222CF	.47µF	50	.25	.22	.19	.17

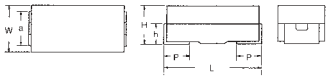


See page 111 for Plastic Fliptop Case for SMDs.

Resin Molded Chip Tantalum Electrolytic Capacitors (±20%)

Any surface mount Tantalum Chip Capacitor may be special ordered – 2000 piece minimum.





Case Size (Dimensions in mm)

EIA CASE CODE	L ±0.2	W ±0.2	H ±0.2	P ±0.3	a ±0.2	h(min)
A (3216)	3.2	1.6	1.7	0.8	1.2	0.7
B (3528)	3.5	2.8	1.9	0.8	2.0	0.7
C (6032)	6.0	3.2	2.5	1.3	2.0	1.0
D (7343)	7.3	4.3	2.9	1.3	2.4	1.0

10V SMT Tantalum				Pricing per each			
		Case	10 pc.	Pricing			
Part No.	Capacitance	Size	Incremnt	100	500	1000	5000
87020CF	10µF	B	$.55	$.50	$.40	$.32	$.29
87118CF	100µF	D	1.49	1.35	1.15	.91	.69

16V SMT Tantalum				Pricing per each			
		Case	10 pc.	Pricing			
Part No.	Capacitance	Size	Incremnt	100	500	1000	5000
86932CF	1µF	A	~~$.49~~ $.39	$.33	$.26	$.22	$.21
87038CF	10µF	C	.60	.50	.39	.35	.335
87100CF	47µF	D	~~$2.49~~ .95	.85	.79	.69	.65

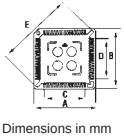
PLCC Surface Mount Sockets

- Current: 1A
- Dielectric strength: 600VAC for 1 minute
- Insulator resistance: 5000MΩ minimum
- Temperature surface mount: -55˚C/ +170˚C

SALE



152688CF



Dimensions in mm

Part #	A & B	C & D	E
152688	23.18	12.70	28.50
152696	30.80	20.32	40.00

Part No.	Mfr. Cross Ref. No.	Pins	1	10	50	100
152688CF	PLCC44D	44	$.99	$.79	$.49	$.39
152696CF	PLCC68D	68	~~$.99~~ .525	.49	.45	.39

0805 Resistor Assortment (±5%)

144 Values, 50 pcs. each; 7,200 Pieces Total



Resistance Value Chart:

1.2	10	75	430	2.0k	10k	51k	270k	2.2M
1.6	16	85	470	2.2k	11k	56k	300k	2.4M
2.2	18	91	510	2.4k	12k	62k	360k	2.7M
2.4	20	110	560	2.7k	13k	68k	390k	3.0M
2.7	22	120	620	3.0k	15k	75k	430k	3.3M
3.0	24	130	680	3.3k	16k	82k	470k	3.6M
3.3	27	150	750	3.6k	18k	91k	510k	3.9M
4.3	30	160	820	3.9k	20k	100k	560k	4.3M
4.7	33	180	910	4.3k	22k	110k	620k	4.7M
5.1	39	200	1.0k	4.7k	24k	120k	750k	5.1M
5.6	43	220	1.1k	5.6k	27k	150k	820k	5.6M
6.2	47	240	1.2k	6.2k	30k	160k	910k	6.8M
6.8	51	270	1.3k	6.8k	33k	180k	1.0M	7.5M
7.5	56	300	1.5k	7.5k	36k	200k	1.6M	8.2M
8.2	62	360	1.6k	8.2k	39k	220k	1.8M	9.1M
9.1	68	390	1.8k	9.1k	43k	240k	2.0M	10M

- Size (mm): 2.0L x 1.25W x 0.5Thick
- Max. overload voltage: 200V
- 1/8 watts
- Operating temperature: -50˚C to 120˚C
- Case size (two cases): 10.5"L x 6.7"W x 1.7"T
- Weight: 1.9 lbs.

Includes: Case with labels

Part No.	Mfr. Cross Ref. No.	1	10	25
172806CF	16-500	$79.95	$71.95	$64.79

1206 Resistor Assortment (±1%)

56 Values, 200 pcs. each; 11,200 pcs.Total



Packaged in strips of 200 pcs. each

Value Chart (Ohms)

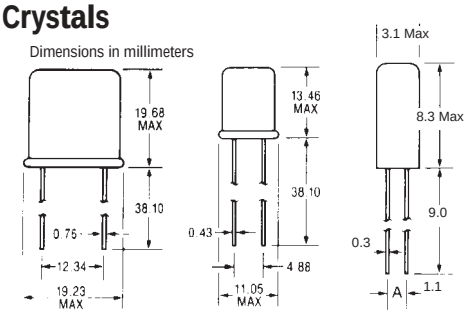
10	200	3.92k	75k
12.1	243	4.99k	90.9k
15	301	6.19k	100k
20	392	7.5k	121k
24.3	499	9.09k	150k
30.1	619	10k	200k
39.2	750	12.1k	243k
49.9	909	15k	301k
61.9	1k	20k	392k
75	1.21k	24.3k	499k
90.9	1.5k	30.1k	619k
100	2k	39.2k	750k
121	2.43k	49.9k	909k
150	3.01k	61.9k	1M

- Max. working voltage: 200V
- Power: 1/8W
- Operating temperature: -55˚C to +125˚C
- Temp. coefficient: ±100 ppm/˚C
- Resistor dimensions (mm): 3.10L x 1.5 W x 0.55H

Part No.	Mfr. Cross Ref. No.	1	10	25
156881CF	SMR1206SB	$99.99	$89.99	$79.99

Crystals

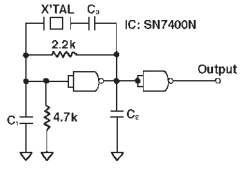
Dimensions in millimeters



HC33/U Case HC49/U (HC18/U) Case TF Case

- Frequency calibration tolerance: ± 50ppm @ 25°C
- Operating temperature: -10°C to +60°C
- Drive level: 4.0 mW maximum
- Frequency stability tolerance: ±50 ppm from -10°C to +60°C
- Shunt capacitance: 7pF maximum

Application Reference (4~14MHz) (Parallel Resonance)



C1: 150-470 pF
C2: 220-820 pF
C3: Match crystal impedance

HC33/U Case

Part No.	Mfr. Cross Ref. No.	Frequency (MHz)	Impedance	Microprocessor	Pricing 1	10	100	1000
14349CF	CY1	1.0	13pF	MC6800/6808/6809E/6500 series	$4.95	$4.49	$3.95	$3.49

HC49/U (HC18/U) Case

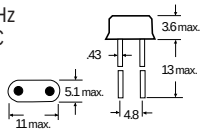
102613CF	CY1.843	1.8432	18pF	MC14411/MC6802	$.99	$.72	$.51	$.39
102621CF	CY2.0	2.0	Series	2650/F-8	1.49	1.25	.99	.75
101274CF	CY2.457	2.4576	32pF	CDP1702/1802C/1804/1804C	.99	.89	.79	.69
14525CF	CY3.27	3.2768	18pF	IM6100C/CDP1802/CDP1804	.99	.89	.79	.69
14533CF	CY3.57	3.579545	18pF	MC6801,2,3/MM5369	~~$.89~~ .59	.54	.42	.39
14568CF	CY3.68	3.6864	18pF	8748/8035-8	.89	.79	.69	.59
14592CF	CY4	4.0	20pF	MCS-40/MC6802,8,9/CDP1802	~~$.89~~ .59	.54	.41	.39
14621CF	CY4.91	4.9152	Series	CDP1802C/1804/1804C	.89	.79	.69	.59
14681CF	CY6	6.0	18pF	MCS-48/IM8048	.79	.70	.59	.40
14699CF	CY6.14	6.144	30pF	MCS-85/8085	.79	.69	.55	.41
14710CF	CY7.37	7.3728	30pF	8051/8031	.89	.80	.65	.45
14728CF	CY8	8.0	Series	IM6100A/MC68B09	~~$.89~~ .74	.67	.60	.54
14381CF	CY10	10.0	Series	MCS-85/8085A-2	.79	.69	.59	.49
120061CF	CY11.05	11.0592	Series	General purpose	.89	.79	.69	.59
14402CF	CY12	12.0	Series	MCS-86/8086/8284/8202	.89	.75	.55	.39
14453CF	CY16	16.0	Series	8080/8224/general purpose	.62	.56	.45	.35
14517CF	CY20	20.0	Series	MCS-80/8080A/8224	.79	.69	.59	.39

TF Case

14584CF	CY32.76	32.768kHz	10.5pF	Tuning fork	$.89	$.79	$.69	$.59

Low Profile Crystals

- Frequency range: 3.5 to 70.0MHz
- Operating temp.: -10˚C to +60˚C
- Drive level: 0.5mW (fundamental frequency)
- Aging: ±5ppm/year maximum
- Frequency stability tolerance: ±50ppm



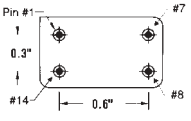
HC49/S Case

HC49/S Case (Low Profile)

Part No.	Mfr. Cross Ref. No.	Frequency (MHz)	Imped.	Max. Resist.	Microprocessor	Pricing 1	10	100	1000
137816CF	CY3.57LP	3.579545	17pF	150Ω	MC6801, 2, 3/MM5369	$.95	$.81	$.65	$.59
137832CF	CY4LP	4.000	17pF	120Ω	MCS-40/MC6802, 8, 9/CDP1802	.99	.89	.79	.69
137859CF	CY8LP	8.000	Series	60Ω	IM6100A/MC68B09	.75	.67	.59	.53
137875CF	CY11.05LP	11.0592	Series	50Ω	General purpose	~~$1.05~~ .72	.65	.53	.42
137891CF	CY16LP	16.000	Series	40Ω	8080/8224/general purpose	.69	.62	.56	.51

TTL Crystal Oscillators

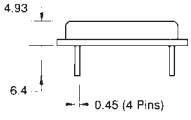


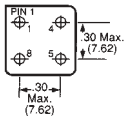


Full Can

Pin #	Function
1	N/C
7	GND
8	Output
14	+5VDC

Full Can





Half Can

Pin #	Function
1	N/C
4	GND
5	Output
8	+5VDC

Half Can

Specifications:

- Input voltage: +5VDC ±0.5VDC
- OSC series oscillators fit into a 14-pin DIP socket P/N 133006CF, below
- Frequency stability ±100ppm
- Operating temperature: 0°C to 70°C



102779CF

Part No.	Mfr. Cross Ref. No.	Frequency (MHz)	Size	Max Input Current	Rise Fall Time	Input Current	Pricing 1	10	100	1000
27861CF	OSC1	1.0	Full	7mA	15ns	45mA	~~$3.49~~ $2.75	$2.45	$1.59	$1.39
27879CF	OSC184	1.8432	Full	7mA	15ns	45mA	2.39	2.15	1.75	1.29
27924CF	OSC2	2.0	Full	7mA	15ns	30mA	1.99	1.79	1.59	1.39
27967CF	OSC4	4.0	Full	7mA	10ns	50mA	1.99	1.79	1.59	1.39
27991CF	OSC8	8.0	Full	15mA	15ns	30mA	1.99	1.79	1.59	1.39
27887CF	OSC10	10.0	Full	15mA	10ns	20mA	1.99	1.79	1.59	1.39
102779CF	OSC10H	10.0	Half	45mA	6ns	30mA	1.19	1.07	.96	.86
144207CF	OSC11.05	11.059	Full	50mA	10ns	30mA	1.99	1.79	1.59	1.39
27895CF	OSC12	12.0	Full	15mA	10ns	50mA	1.99	1.65	1.19	.84
108652CF	OSC14.31	14.31818	Full	15mA	10ns	50mA	1.99	1.79	1.59	1.39
27908CF	OSC16	16.0	Full	15mA	10ns	50mA	1.59	1.45	1.15	.85
27932CF	OSC20	20.0	Full	17mA	10ns	20mA	1.79	1.59	1.45	1.29
27941CF	OSC32	32.0	Full	18mA	7ns	15mA	1.59	1.45	1.15	.85
76822CF	OSC33	33.0	Full	18mA	6ns	15mA	1.99	1.79	1.60	1.45
153226CF	OSC40	40.0	Full	18mA	6ns	15mA	1.79	1.59	1.45	1.29
76831CF	OSC50	50.0	Full	25mA	6ns	25mA	1.99	1.79	1.59	1.39
76857CF	OSC100	100.0	Full	25mA	3ns	90mA	2.49	2.25	1.95	1.75

14-Pin Crystal Oscillator Socket

- Can be PCB mounted without the modifications that would be needed with DIP-IC sockets
- Low profile solder tail; machine tooled on 4 pins
- Good for prototyping and PCB mounting



Part No.	Description	1	10	100	1000
133006CF	Oscillator socket	$.55	$.46	$.34	$.31

Typical Crystal Oscillator Design

An oscillator is an amplifier with a feedback loop from output to input. Barkhausen criteria states that for oscillation to occur, the product of the gains around a loop must be equal to or greater than unity and that the sum of the phase shifts around the loop must be a multiple of 360˚.

These parameters will determine the crystal specifications:

- On what crystal frequency do you wish to operate?
- How much can the frequency be off at room temperature (25˚C)?
- At what temperature range will the crystal operate?
- How much can the crystal change frequency over the temperature range?
- Will the crystal operate at a series or parallel resonant?
- If operated at parallel, what is the parallel capacitance in picofarads (pF)?
- Is pullability important? • What holder type or can size do you require?

Resettable Fuses

Resettable fuses improve reliability and lower costs. Polymer Positive Temperature Coefficient (PPTC) fuses have provided designers in numerous industries a new tool in their battle to improve product quality and performance. As PPTC fuses are resettable, warranty costs and service calls are largely avoided.

RA Series

- Rated voltage: (V_{MAX}, V): 60
- Max. current: (I_{MAX}, A): 40
- Lead length (D): 7.6mm (min.)
- Thickness (E): 3.1mm (min.)

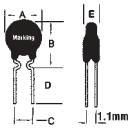


Fig. 1

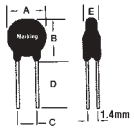


Fig. 2

Part No.	Mfr. Cross Ref. No.	Hold Curr. (I_H, A)	Trip Curr. (I_T, A)	Fig.	Size (mm) A	B	C	Pricing 1	10	100	500
199814CF	RA010-60	0.10	0.20	1	7.4	12.7	5.1	$.43	$.41	$.39	$.31
199822CF	RA017-60	0.17	0.34	1	7.4	12.7	5.1	.43	.41	.39	.31
199831CF	RA020-60	0.20	0.40	1	7.4	12.2	5.1	.43	.41	.39	.31
199849CF	RA025-60	0.25	0.50	1	7.4	12.7	5.1	.43	.41	.39	.31
199857CF	RA030-60	0.30	0.60	1	7.4	13.0	5.1	.43	.41	.39	.31
199865CF	RA040-60	0.40	0.80	1	7.6	13.5	5.1	.47	.44	.41	.31
199873CF	RA050-60	0.50	1.00	1	7.9	13.7	5.1	.49	.46	.43	.32
199881CF	RA065-60	0.65	1.30	1	9.7	14.5	5.1	.50	.47	.43	.34
199890CF	RA075-60	0.75	1.50	1	10.4	15.2	5.1	.50	.47	.43	.34
199902CF	RA090-60	0.90	1.80	1	11.7	15.8	5.1	.52	.49	.45	.30
199911CF	RA110-60	1.10	2.20	2	13.0	18.0	5.1	.57	.55	.52	.40
199929CF	RA135-60	1.35	2.70	2	14.5	19.6	5.1	.58	.56	.53	.41
199937CF	RA160-60	1.60	3.20	2	16.3	21.3	5.1	.60	.57	.54	.42
199945CF	RA185-60	1.85	3.70	2	17.8	22.9	5.1	.61	.58	.55	.43
199953CF	RA250-60	2.50	5.00	2	21.3	26.4	10.2	.70	.67	.64	.50
199961CF	RA300-60	3.00	6.00	2	24.9	30.0	10.2	.74	.71	.67	.53
199970CF	RA375-60	3.75	7.50	2	28.5	33.5	10.2	.74	.71	.67	.53

RB Series

- Rated voltage: (V_{MAX}, V): 30
- Max. current (I_{MAX}, A): 40
- Lead length (D): 7.6mm (min.)
- Thickness (E): 3.0mm (min.)

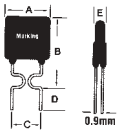


Fig. 3

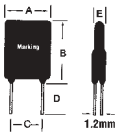


Fig. 4

Part No.	Mfr. Cross Ref. No.	Hold Curr. (I_H, A)	Trip Curr. (I_T, A)	Fig.	Size (mm) A	B	C	Pricing 1	10	100	500
199988CF	RB090-30	0.90	1.80	3	7.4	12.2	5.1	$.48	$.46	$.43	$.34
199996CF	RB110-30	1.10	2.20	3	7.4	14.2	5.1	.48	.46	.43	.34
200002CF	RB135-30	1.35	2.70	3	8.9	13.5	5.1	.48	.46	.43	.34
200011CF	RB160-30	1.60	3.20	3	8.9	15.2	5.1	.53	.51	.48	.41
200029CF	RB185-30	1.85	3.70	3	10.2	15.7	5.1	.48	.44	.40	.31
200037CF	RB250-30	2.50	5.00	3	11.4	18.3	5.1	.52	.48	.43	.34
200045CF	RB300-30	3.00	6.00	4	11.4	17.3	5.1	.57	.52	.48	.37
200053CF	RB400-30	4.00	8.00	4	14.0	20.1	5.1	.62	.57	.52	.40
200061CF	RB500-30	5.00	10.00	4	14.0	24.9	10.2	.67	.62	.56	.44
200070CF	RB600-30	6.00	12.00	4	16.5	24.9	10.2	.73	.67	.61	.48
200088CF	RB700-30	7.00	14.00	4	19.1	26.7	10.2	.80	.73	.67	.52
200096CF	RB800-30	8.00	16.00	4	21.6	29.2	10.2	.87	.80	.72	.56
200109CF	RB900-30	9.00	18.00	4	24.1	29.7	10.2	.92	.84	.77	.60

Fuse Clips

- Low contact resistance • Low profile
- Withstands shock and vibration

Prepackaged: order in increments of 10, 100 or 1000


Fig. 1


Fig. 2



Fig. 3

Part No.	Description	Fig.	Size (H" x W" x D" x P")	10	100	1000
102859CF	5mm, front leads	1	.37 x .25 x .21 x .19	$.12	$.09	$.05
119280CF	5mm, side leads	2	.33 x .25 x .20 x .21	.09	.08	.07
102841CF	1/4", front leads (10A)	3	.32 x .27 x .25 x .23	.09	.08	.07
220732CF	5mm, front leads (10A)	3	.33 x .27 x .25 x .29	.15	.10	.07

Panel Mount Fuse Holders

1¼" x ¼" Standard Thumbscrew Cap

- Straight solder terminal; 10A @ 250VAC



Part No.	Approvals	Size	Mounting Hole	1	10	100	1000
120993CF	—	1.95"L x .71"Dia.	.58"Dia. (Double D-style)	$.79	$.69	$.55	$.49
18702CF	UL/CSA	2.05"L x .71"Dia.	.58"Dia. x .52"Flat (D-style)	1.59	1.35	1.15	.99

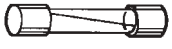
5mm x 20mm Miniature Thumbscrew Cap

- Straight solder terminal; Size: 1.5"L x 0.6"Dia.

Part No.	Approvals	Current	Mounting Hole	1	10	100	1000
150463CF	—	6A @ 250VAC	.50"Dia. x .43"Flat	$.99	$.86	$.75	$.57
102824CF	UL/CSA	10A @ 250VAC	.50"Dia.	.99	.85	.72	.59

1¼" x ¼" Standard Fuses

Fast Acting Fuses (250V) AGC/3AG Fuses



- **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Amps	Mfr.	10	100	1000
69403CF	250mA	Various	$.20	$.18	$.16
10410CF	500mA	Various	.20	.18	.16
197510CF	630mA	Various	.20	.18	.16
10372CF	1 amp	Various	.20	.12	.11
197528CF	1.6 amp	Various	.20	.12	.11
10381CF	2 amp	Various	.20	.12	.11
197536CF	2.5 amp	Various	.20	.12	.11
69438CF	3 amp	Various	.20	.12	.11
197544CF	4 amp	Various	.22	.20	.18
10401CF	5 amp	Various	.22	.20	.18
197552CF	6.3 amp	Various	.22	.20	.18
69462CF	10 amp	Various	.25	.22	.20
186301CF	16 amp	Various	.25	.22	.20

Slow Blow Fuses (250V) MDL/3AG Fuses



Part No.	Amps	Mfr.	1	10	100	1000
25654CF	250mA	Various	$.74	$.59	$.50	$.40
25689CF	500mA	Various	.71	.59	.50	.37
25638CF	1 amp	Various	.71	.59	.50	.37
25646CF	2 amp	Various	.54	.43	.39	.28
69534CF	3 amp	Various	.54	.44	.34	.28
25671CF	5 amp	Various	.54	.44	.34	.28
69569CF	10 amp	Various	.74	.65	.51	.40

5mm x 20mm Miniature Fuses

Fast Acting Fuses (250V) GMA Fuses



- Recommended for new designs
- **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Amps	Mfr.	10	100	500	1000
103886CF	250mA	Various	$.20	$.15	$.11	$.10
102040CF	500mA	Various	.19	.15	.10	.09
103907CF	1 amp	Various	.20	.15	.11	.10
103915CF	2 amp	Various	.20	.15	.11	.10
103923CF	3 amp	Various	.20	.15	.11	.10
103931CF	5 amp	Various	.20	.15	.11	.10

Slow Blow Fuses (250V) GMA Fuses



- **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Amps	Mfr.	10	100	1000
197501CF	500mA	Various	$.29	$.26	$.23
197464CF	1 amp	Various	.29	.26	.23
197472CF	2 amp	Various	.35	.32	.29
197481CF	3.15 amp	Various	.35	.32	.29
197499CF	5 amp	Various	.35	.32	.29

1 Amp Fuse with Pigtail

- 5mm x 20mm fuse
- 250V @ 1A
- Lead length: 1.5"
- **Prepackaged: order in increments of 10 or 100**



Part No.	Description	10	100
215431CF	1 Amp fuse w/ pigtail	$.13	$.12

In-Line Fuse Holders

- Built-in spring ensures good fuse connection
- Vinyl covered wire with stranded copper center
- Wire color: red; except for P/N 108783CF orange



1¼" x ¼" Standard

Part No.	AWG	Wire Lgths	Body Size(L)	Body Color	1	10	100
109321CF	22	3.5/3"	2.4"	Black	$.65	$.58	$.52
102867CF	20	3/3"	2.2"	White	.65	.58	.48
151917CF	18	6/6"	2.4"	White	.99	.85	.65
108783CF	16	21/26"	2.2"	Black	.99	.87	.68
108791CF	14	19/25"	2.5"	Black	1.59	1.19	.83

5mm x 20mm Miniature

Part No.	AWG	Wire Color	Body Size (L)	1	10	100
109330CF	20	Red	1.8"	$.69	$.56	$.45

5mm x 20mm Miniature Low Profile Fuse Holder

- Accepts 5 x 20mm fuses
- 10A @ 250VAC
- Size: 1.4"L x 0.6"Dia.
- D Style mounting hole: 1 ea. 0.5"Dia x .46" flat



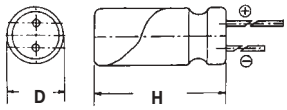
Part No.	Description	1	10	100
102832CF	Fuse holder UL/CSA	$1.95	$1.79	$1.59



Aluminum Radial-Lead Electrolytic Capacitors

General purpose low voltage 85°C (A); HT Type 105°C (B) ±20%

Operating temperature range		-40°C to +85°C (A); -40°C to +105°C (B)
Leakage Current (20°C)	After 1 min.	0.03CV or 4μA, whichever is greater
	After 2 min.	0.01CV or 3μA, whichever is greater



† **CROSS REFERENCES: Elna:** RC2/RE2; **IC:** RAR/RSS; **Marcon:** SEM/SSM; **Nichicon:** LB/VX/USA/SR/SA; **Rubycon:** MS7/TWSS; **Sprague:** 501D/513D; **UCC:** SME/SRE/SRA/SRG; **Panasonic:** KA/KS/SU

✳ Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.†	Op. Temp	Value (μF)	Voltage	Size (mm)* D x H	Pricing 1	10	100	500
158481CF	R0.47B100	B	0.47	100V	5 x 11.5	✳	$.05	$.04	$.03
94160CF	5R1/50	A	1	50V	4 x 5	✳	.12	.08	.05
29831CF	R1/50	A	1	50V	5 x 11	✳	.057	.048	.038
158490CF	R1B100	B	1	100V	5 x 11.5	✳	.06	.05	.04
93729CF	R2.2/50	A	2.2	50V	5 x 11	✳	.038	.033	.026
199021CF	R2.2J/100	A	2.2	100V	5 x 11	✳	.035	.03	.025
135183CF	R3.3/50	A	3.3	50V	5 x 11	✳	.07	.05	.035
31000CF	R4.7/50	A	4.7	50V	5 x 11	✳	.038	.033	.026
198838CF	R10J/16	A	10	16V	5 x 11	✳	.045	.03	.025
94211CF	5R10/25	A	10	25V	4 x 5	✳	.13	.08	.05
94220CF	5R10/35	A	10	35V	5 x 5	✳	.15	.12	.06
94369CF	7R10/35	A	10	35V	5 x 7	✳	.12	.08	.05
29891CF	R10/50	A	10	50V	5 x 10	✳	.06	.05	.04
199048CF	R10J/100	A	10	100V	6.3 x 11	✳	.08	.06	.05
158529CF	R10B100	B	10	100V	6 x 11.5	✳	.08	.06	.05
158326CF	R22B35	B	22	35V	5 x 11.5	✳	.09	.07	.05
198846CF	R22J/16	A	22	16V	5 x 11	✳	.045	.04	.03
189918CF	R22J/25	A	22	25V	5 x 11	✳	.045	.04	.03
207870CF	R22B/25	B	22	25V	5 x 11	✳	.045	.036	.027
198942CF	R22J/35	A	22	35V	5 x 11	✳	.035	.03	.025
93737CF	R22/50	A	22	50V	6 x 11	✳	.06	.05	.035
199056CF	R22J/100	A	22	100V	6.3 x 11	.30	.21	.14	.09
198854CF	R33J/16	A	33	16V	5 x 11	✳	.045	.035	.025
198926CF	R33J/25	A	33	25V	5 x 11	✳	.045	.035	.025
93745CF	R33/50	A	33	50V	6 x 11	$.07 ✳	.055	.05	.045
199064CF	R33J/100	A	33	100V	8 x 11.5	✳	.108	.09	.081
135301CF	R47/10	A	47	10V	5 x 12	✳	.06	.05	.045
198862CF	R47J/16	A	47	16V	5 x 11	✳	.045	.035	.025
93753CF	R47/25	A	47	25V	10 x 17	✳	.048	.033	.026
198951CF	R47J/35	A	47	35V	5 x 10	✳	.05	.04	.03
199072CF	R47J/100	A	47	100V	10 x 12.5	.35	.26	.18	.13
158246CF	R47B25	B	47	25V	5 x 11.5	$.35 ✳	.09	.07	.05
31114CF	R47/50	A	47	50V	6 x 11	$.07 ✳	.06	.05	.045
207811CF	R100/10	A	100	10V	5 x 11	✳	.08	.06	.05
94289CF	5R100/16	A	100	16V	6 x 5	✳	.15	.12	.09
94431CF	7R100/16	A	100	16V	6 x 7	✳	.15	.11	.08
93761CF	R100/25	A	100	25V	6 x 11	✳	.09	.07	.05
198969CF	R100J/35	A	100	35V	6.3 x 11	✳	.07	.06	.05
29962CF	R100/50	A	100	50V	8 x 11	✳	.07	.06	.05
158393CF	R100B50	B	100	50V	8 x 12	✳	.11	.09	.07

✳ Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.†	Op. Temp	Value (μF)	Voltage	Size (mm)* D x H	Pricing 1	10	100	500
207845CF	R180/16	B	180	16V	6.5 x 15	✳	$.07	$.06	$.045
135124CF	7R220/10	A	220	10V	8 x 11	.28	.21	.15	.11
198871CF	R220J/16	A	220	16V	6.3 x 11	.25	.16	.11	.07
30496CF	R220/25	A	220	25V	8 x 11	✳	.08	.06	.05
158262CF	R220B25	B	220	25V	8 x 12	✳	.12	.09	.07
93770CF	R220/35	A	220	35V	10 x 16	✳	.12	.09	.08
93778CF	R220/50	A	220	50V	10 x 20	✳	.15	.12	.09
158406CF	R220B50	B	220	50V	10 x 17	✳	.17	.13	.11
199081CF	R220J/100	A	220	100V	12.5 x 25	1.10	.85	.63	.39
198889CF	R330J/16	A	330	16V	8 x 11.5	.29	.19	.13	.09
93796CF	R330/25	A	330	25V	10 x 19	✳	.20	.15	.11
198977CF	R330J/35	A	330	35V	10 x 12.5	.45	.35	.25	.18
199099CF	R330J/100	A	330	100V	12.5 x 25	1.45	1.10	.79	.59
93809CF	R470/16	A	470	16V	10 x 20	✳	.11	.095	.076
158203CF	R470B16	B	470	16V	8 x 12	✳	.12	.10	.09
31181CF	R470/25	A	470	25V	10 x 16	✳	.12	.10	.09
158289CF	R470B25	B	470	25V	8 x 14	✳	.15	.12	.10
93817CF	R470/35	A	470	35V	12 x 24	✳	.17	.15	.13
93825CF	R470/50	A	470	50V	13 x 20	.29	.27	.19	.13
158465CF	R470B63	B	470	63V	13 x 21	.30	.27	.24	.21
199101CF	R470J/100	A	470	100V	16 x 25	1.89	1.45	1.10	.80
30015CF	R1000/16	A	1000	16V	13 x 21	✳	.16	.14	.12
93833CF	R1000/25	A	1000	25V	12 x 20	✳	.25	.23	.18
158297CF	R1000B25	B	1000	25V	10 x 17	.35	.29	.25	.19
158377CF	R1000B35	B	1000	35V	13 x 21	.49	.45	.35	.25
93841CF	R1000/50	A	1000	50V	16 x 26	.52	.46	.41	.34
199110CF	R1000J/100	A	1000	100V	18 x 40	3.59	2.69	1.99	1.55
133145CF	R2200/16	A	2200	16V	16 x 26	$.49 .32	.28	.24	.22
30533CF	R2200/25	A	2200	25V	16 x 36	.55	.49	.40	.30
198985CF	R2200J/35	A	2200	35V	16 x 25	1.39	1.25	.99	.74
158431CF	R2200B50	B	2200	50V	16 x 31	.99	.89	.70	.61
198897CF	R3300J/16	A	3300	16V	12.5 x 25	1.25	.99	.73	.49
30891CF	R3300/25	A	3300	25V	16 x 31	.79	.71	.64	.55
198993CF	R3300J/35	A	3300	35V	16 x 35.5	1.95	1.49	1.15	.83
199013CF	R3300J/50	A	3300	50V	18 x 35.5	3.10	2.35	1.75	1.32
198900CF	R4700J/16	A	4700	16V	16 x 25	1.35	.99	.75	.55
93850CF	R4700/25	A	4700	25V	18 x 35	.99	.85	.70	.55
199005CF	R4700J/35	A	4700	35V	18 x 35.5	2.95	2.19	1.69	1.25
163301CF	R4700/50	A	4700	50V	22 x 42	1.99	1.79	1.50	1.31
31510CF	R6800/16	A	6800	16V	18 x 36	1.12	1.01	.88	.79
198934CF	R6800J/25	A	6800	25V	18 x 35.5	2.79	2.15	1.59	1.19

*Capacitor dimensions and styles may vary

Snap Mount Large Can Aluminum Electrolytic Capacitors (±20%)

- Designed as input filter for switched mode power supply; standard 10mm (.400") snap-in spacing
- Operating temperature range: -40°C to +85°C max. leakage current: 0.02CV (uA) or 3mA whichever is smaller
- Can-Top safety vent

Snap-Ins!


115422CF

† **CROSS REFERENCES: Aero M**: LP/LPR; **Elna**: LP3/LP4; **Illinois Capacitor**: LBA/LPR; **Mallory**: LPX; **Marcon**: CEAWF; **Nichicon**: LLK/LLQ; **Panasonic**: TS-UP/TS-U; **Phillips** (MEPCO): 3487/3489; **Rubycon**: RSP; **Sprague**: 80D/82D; **United Chemicon**: SMG(VN)/SMH(VN)

Part No.	Mfr. Cross Ref. No.†	Capacitance	Voltage	Size (mm)* D x H	Pricing 1	10	100
203211CF	SN220/400/2	220μF	400V	22 x 51	$4.99	$3.99	$2.99
203220CF	SN220/400/3	220μF	400V	30 x 30	4.99	3.99	2.99
203238CF	SN270/350	270μF	350V	25 x 40	4.99	3.99	2.99
203246CF	SN330/400	330μF	400V	30 x 46	5.29	4.49	2.69
115377CF	SN470/200	470μF	200V	30 x 41	2.49	2.25	1.99
203254CF	SN470/400/4	470μF	400V	35 x 41	6.99	5.69	4.49
203262CF	SN470/400/5	470μF	450V	35 x 51	9.95	7.95	6.39

Part No.	Mfr. Cross Ref. No.†	Capacitance	Voltage	Size (mm)* D x H	Pricing 1	10	100
155889CF	SN560/200	560μF	200V	23 x 41	$3.49	$2.99	$2.49
203271CF	SN680/200/2	680μF	200V	35 x 25	2.69	2.49	2.19
203289CF	SN680/200/3	680μF	200V	30 x 31	2.69	2.49	2.19
203297CF	SN820/200/4	820μF	200V	30 x 41	3.99	3.15	2.39
203300CF	SN820/200/2	820μF	200V	35 x 25	4.19	3.45	2.65
115422CF	SN4700/50	4,700μF	50V	30 x 41	2.89	2.59	2.35
115431CF	SN6800/50	6,800μF	50V	30 x 51	3.49	3.19	2.89
157737CF	SN10000/50	10,000μF	50V	35 x 40	4.95	4.10	3.99

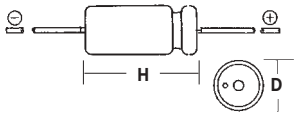
*Capacitor dimensions and styles may vary



SALE

Aluminum Axial-Lead Electrolytic Capacitors

General purpose low voltage 85°C maximum



Operating temperature range	-40°C to +85°C
Leakage Current (After 2 minutes 20°C)	0.02CV or 2μA, whichever is greater

†**CROSS REFERENCES: Elna:** RE2; **IC:** RAR; **Marcon:** SEM; **Nichicon:** LB/VX; **Rubycon:** TWSS; **Sprague:** 501D/513D; **UCC:** SME; **Panasonic:** SU

✳ Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.†	Value (μF)	Voltage	Size (mm)* DxH	Pricing 1	10	100	500
10866CF	A1/50	1	50V	5 x 13	✳	$.15	$.115	$.09
199128CF	A2.2J/16	2.2	16V	6 x 13	✳	.084	.076	.07
93569CF	A2.2/50	2.2	50V	6 x 13	✳	.19	.14	.10
199136CF	A3.3J/16	3.3	16V	6 x 12	$.20 ✳	.072	.066	.06
199419CF	A3.3J/50	3.3	50V	6 x 12	✳	.19	.12	.09
11076CF	A4.7/50	4.7	50V	6 x 13	✳	.18	.13	.11
199427CF	A6.8J/50	6.8	50V	6 x 12	✳	.19	.12	.09
199144CF	A10J/16	10	16V	6 x 12	✳	.20	.14	.10
199259CF	A10J/25	10	25V	5 x 12	✳	.20	.14	.10
93577CF	A10/35	10	35V	6 x 13	✳	.19	.14	.10
10882CF	A10/50	10	50V	6 x 12	$.19 ✳	.15	.12	.09
199152CF	A22J/16	22	16V	6 x 12	✳	.17	.12	.09
199267CF	A22J/25	22	25V	6 x 12	✳	.20	.14	.10
10997CF	A22/50	22	50V	6 x 12	✳	.19	.14	.10
199161CF	A33J/16	33	16V	6 x 13	✳	.19	.13	.09
199275CF	A33J/25	33	25V	6.3 x 12	✳	.23	.12	.09
199347CF	A33J/35	33	35V	6.3 x 16	✳	.19	.13	.09
199435CF	A33J/50	33	50V	6.3 x 16	✳	.19	.12	.09
199179CF	A47J/16	47	16V	6.3 x 12	✳	.20	.14	.10
135319CF	A47/25	47	25V	8 x 16	✳	.23	.18	.14
199355CF	A47J/35	47	35V	6.3 x 16	✳	.20	.14	.10
11105CF	A47/50	47	50V	8 x 16	✳	.19	.14	.10
199443CF	A68J/50	68	50V	8 x 15	.25	.21	.17	.12
199187CF	A100J/16	100	16V	6.3 x 16	.28	.24	.20	.15
199283CF	A100J/25	100	25V	8 x 16	.29	.25	.21	.15
93551CF	A100/35	100	35V	8 x 16	✳	.24	.19	.14
10911CF	A100/50	100	50V	8 x 20	✳	.25	.19	.15
199195CF	A220J16	220	16V	8 x 16	.28	.24	.20	.15
199291CF	A220J/25	220	25V	8 x 16	.25	.21	.18	.12
199363CF	A220J/35	220	35V	10 x 17	.35	.28	.25	.19

✳ Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.†	Value (μF)	Voltage	Size (mm)* DxH	Pricing 1	10	100	500
11017CF	A220/50	220	50V	10 x 20	$.35	$.29	$.25	$.19
199208CF	A330J/16	330	16V	8 x 16	$.28 ✳	.15	.135	.12
199304CF	A330J/25	330	25V	10 x 17	.29	.23	.21	.15
199371CF	A330J/35	330	35V	10 x 17	$.46 ✳	.29	.24	.21
199451CF	A330J/50	330	50V	13 x 22	.39	.33	.25	.22
199216CF	A470J/16	470	16V	8 x 16	.35	.28	.25	.19
199312CF	A470J/25	470	25V	10 x 17	.45	.37	.33	.28
199380CF	A470J/35	470	35V	10 x 21	.51	.41	.37	.29
11121CF	A470/50	470	50V	13 x 31	.59	.49	.45	.39
199460CF	A680J/50	680	50V	16 x 25	.81	.69	.54	.44
93631CF	A1000/16	1000	16V	13 x 27	.61	.49	.42	.39
10954CF	A1000/25	1000	25V	13 x 31	.59	.49	.44	.34
93649CF	A1000/35	1000	35V	13 x 26	.85	.75	.59	.49
147256CF	A1000/50	1000	50V	16 x 31	.79	.69	.59	.49
213356CF	A1000/50-1	1000	50V	22 x 41	.69	.59	.55	.49
11033CF	A2200/16	2200	16V	16 x 40	.79	.71	.65	.59
199321CF	A2200J/25	2200	25V	16 x 28	1.11	.90	.78	.59
93657CF	A2200/35	2200	35V	16 x 30	1.25	1.10	.99	.85
199478CF	A2200J/50	2200	50V	18 x 42	2.55	2.10	1.95	1.75
199224CF	A3300J/16	3300	16V	16 x 26	.79	.71	.65	.58
93665CF	A3300/25	3300	25V	16 x 32	.99	.89	.79	.69
199398CF	A3300J/35	3300	35V	18 x 37	3.39	2.95	2.29	2.10
199486CF	A3300J/50	3300	50V	22 x 43	4.29	3.55	3.25	2.95
199232CF	A4700J/16	4700	16V	16 x 30	2.10	1.89	1.55	1.15
93673CF	A4700/25	4700	25V	22 x 39	1.69	1.49	1.29	.99
199401CF	A4700J/35	4700	35V	18 x 40	4.85	3.99	3.35	2.99
158810CF	A4700A50	4700	50V	25 x 43	2.79	2.29	2.09	1.79
199241CF	A6800J/16	6800	16V	16 x 33	2.15	1.85	1.39	1.15
199339CF	A6800J/25	6800	25V	18 x 40	$4.75 1.59	1.45	1.35	1.19
93681CF	A10000/16	10000	16V	22 x 51	2.25	2.05	1.65	1.19

*Capacitor dimensions and styles may vary

Ceramic Disc Capacitors (±20%)

25, 50 and 1000 Volt, Z5U Temperature Coefficient

Operating temperature range	+10°C to +85°C
Cap. change over temp. range	+22% to -56%
Dielectric withstanding voltage	2.5 times rated volt. for not < 1 sec.

Any Ceramic Disc Capacitor can be special ordered on ammo-style tape – 1000 piece minimum



Low Voltage
50VDC Ceramic

Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	Capacitance	Voltage	Dia.* (mm)	Pricing 10	100	1000	5000
135141CF	DC2.2	2.2pF	50V	5	$.05	$.035	$.02	$.015
15333CF	DC10	10pF	50V	5	.07	.05	.02	.015
15405CF	DC22	22pF	50V	6	.07	.05	.025	.02
15510CF	DC47	47pF	50V	5	.05	.035	.02	.015
15341CF	DC100	100pF	50V	5	.05	.035	.025	.02
15413CF	DC220	220pF	50V	5	.05	.035	.025	.015
15528CF	DC470	470pF	50V	5	.08	.065	.025	.022
207853CF	DC820/1000	820pF	1000V	14	.07	.05	.04	.03
15190CF	DC.001	.001μF	50V	6	.06	.05	.025	.022
97341CF	DC.0022/1K20	.0022μF	1000V	11	.18	.12	.084	.066
15211CF	DC.0047	.0047μF	50V	6	.05	.035	.03	.02
15229CF	DC.01	.01μF	50V	6	.06	.04	.03	.02
97375CF	DC.01/1K20	.01μF	1000V	12	.18	.12	.084	.066
15245CF	DC.022	.022μF	50V	8	.07	.05	.04	.03
15253CF	DC.047	.047μF	50V	8	.084	.069	.057	.04
151116CF	DC.1/25	.1μF	25V	6	.14	.13	.08	.07
15270CF	DC.1	.1μF	50V	8	.15	.13	.115	.095

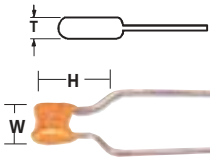
*Capacitor dimensions and styles may vary

Monolithic Ceramic Capacitors (±20%) (Z5U Series)

Applications:
- Data processing
- Communications engineering

Operating temperature range: -10°C to +85°C

Any Ceramic Disc Capacitor can be special ordered on ammo-style tape – 1000 piece minimum



✳ Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	Capacitance	Volt.	Size (mm)* W x T x H	Pricing 1	10	100	1000	5000
81541CF	MD10	10pF	50V	3.5 x 2.0 x 3.0	$.12 ✳	$.10	$.07	$.045	$.045
81533CF	MD22	22pF	50V	4.0 x 2.0 x 4.0	$.10 ✳	.095	.073	.045	.04
81525CF	MD100	100pF	50V	3.5 x 2.0 x 3.0	✳	.09	.07	.045	.035
81517CF	MD.001	.001μF	50V	4.5 x 2.0 x 3.0	✳	.09	.07	.05	.035
138181CF	MD.0022	.0022μF	50V	4.0 x 2.0 x 5.5	✳	.07	.06	.05	.04
138202CF	MD.0047	.0047μF	50V	5.0 x 2.0 x 5.5	✳	.09	.07	.05	.035
25507CF	MD.01	.01μF	50V	3.5 x 2.0 x 3.0	✳	.09	.06	.04	.035
57621CF	MD.047	.047μF	50V	2.5 x 2.5 x 3.0	✳	.10	.07	.05	.045
25523CF	MD.1	.1μF	50V	6.0 x 2.0 x 4.0	✳	.07	.06	.04	.035
25540CF	MD.22	.22μF	50V	6.0 x 2.0 x 4.5	✳	.17	.12	.08	.06
138237CF	MD.33	.33μF	50V	6.0 x 2.0 x 8.0	✳	.20	.17	.11	.07
25558CF	MD.47	.47μF	50V	4.5 x 2.5 x 4.5	✳	.25	.19	.13	.12
81509CF	MD1	1μF	50V	6.0 x 3.0 x 7.0	.48	.43	.32	.23	.21

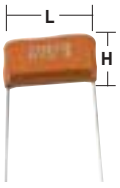
*Capacitor dimensions and style may vary



See page 121 for Axial Electrolytic Capacitor Cabinet Kit.

Mylar Capacitors (±10%)

Metalized Polyester Film Capacitors



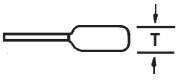
- High performance at low cost
- Non-inductive construction

Operating temperature range	-40°C to +85°C
Dissipation factor	≤.01 (at 1kHz)
Dielectric strength	150% of rated voltage for 5 sec.

†Cross References:

Panasonic: ECQ-E Series; **Sprague:** DF/450P/451P/453P; **Westlake:** 160/168/185/167/184/186; **Rubycon:** MC/MN; **Mepco:** 713A1/719A1/C280; **TRW:** X601PE/X601CPE; **Packtron:** MF/RB; **Secor:** MMKS/MMKR/MMDR; **RIFA:** PHE353/ PHE354; **Roederstein:** MKT 1818/MKT 1822; **WIMA:** MKS; **CSF Thompson:** MD/ MC; **Siemens:** B325X-XX; **NIC:** NEM/NRM; **Nichicon:** DDXM; **Phillips:** 712 A1 series

Any Mylar Capacitor can be special ordered on ammo-style tape – 1000 piece minimum



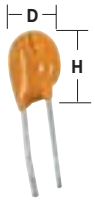
✳ Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref No.†	Capacitance	Volt. (V)	Size (mm)* L x T x H	Pricing 1	10	100	1000
26833CF	MY.001	.001µF	100	7.0 x 3.0 x 7.0	✳	$.10	$.07	$.05
207802CF	MY.0015/1000	.0015µF	1000	23.5 x 5.1 x 10.7	✳	.11	.06	.05
26868CF	MY.0022	.0022µF	100	6.0 x 3.0 x 10.0	✳	.10	.06	.04
26876CF	MY.0047	.0047µF	100	6.0 x 3.0 x 9.0	✳	.14	.13	.11
207829CF	MY.0068/220	.0068µF	220	18.0 x 5.5 x 10.0	✳	.12	.07	.05
26884CF	MY.01	.01µF	100	6.0 x 3.0 x 7.0	✳	.10	.06	.04
207837CF	MY.018/50	.018µF	50	6.1 x 2.6 x 11.3	✳	.11	.06	.05
26905CF	MY.022	.022µF	100	6.0 x 3.0 x 10.0	✳	.15	.10	.06
26921CF	MY.033	.033µF	100	8.0 x 4.0 x 11.0	✳	.15	.10	.06
207861CF	MY.033/400	.033µF	400	11.0 x 4.0 x 8.0	✳	.10	.06	.04
26930CF	MY.047	.047µF	100	8.0 x 4.0 x 12.0	✳	.15	.10	.06
135562CF	MY.1/50	.1µF††	50	14.0 x 6.0 x 12.0	✳	.13	.09	.05
26956CF	MY.1	.1µF	100	12.5 x 5.0 x 9.5	✳	.17	.12	.07
93921CF	MY.1/250	.1µF	250	12.5 x 5.5 x 10	✳	.19	.16	.13
26972CF	MY.22	.22µF	100	12.5 x 5.5 x 10	✳	.19	.12	.085
93964CF	MY.33/250	.33µF	250	18.0 x 7.0 x 12.5	.32	.25	.21	.19
26999CF	MY.47	.47µF	100	18.0 x 6.0 x 11.5	.39	.29	.20	.17
27001CF	MY1	1µF	100	18.0 x 7.5 x 14.0	.49	.39	.33	.29
93981CF	MY1/250	1µF	250	26.0 x 9.0 x 16.0	.89	.69	.49	.29
93999CF	MY2.2/250	2.2µF	250	26.0 x 9.0 x 16.0	.89	.69	.59	.45

†† ±20% tolerance *Capacitor dimensions and styles may vary

Dipped Tantalum Capacitors (±10%)

Resin Dipped Solid Tantalum Capacitors



- Flame retardant coating
- Exceptional temperature stability
- Low leakage current
- Moisture-resistant
- Designed for entertainment and commercial equipment

Operating temp. range	-55°C to +85°C (+125°C with derating)
Rated voltage DC	≤ +85°C

†Cross References:

Panasonic: EF Series; **AVX:** Tap Series; **Sprague:** 196D and 199D; **Matsuo:** 202; **Kemet:** T350/ T360; **Mepco:** 49GS; **NEC:** DN; **Nichicon:** 599; **NIC:** NDTM; **Hitachi:** TSD-3

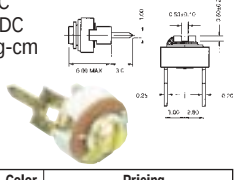
✳ Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref No.†	Capacitance	Voltage (V)	Size (mm)* D x H	Pricing 1	10	100	1000
33486CF	TM.1	.1µF	35	4.5 x 7.0	✳	$.25	$.19	$.15
33507CF	TM.22	.22µF	35	4.5 x 7.0	✳	.25	.19	.15
33523CF	TM.33	.33µF	35	4.5 x 7.0	✳	.25	.19	.15
33531CF	TM.47	.47µF	35	4.5 x 7.0	✳	.25	.19	.17
61102CF	TM.68	.68µF	35	2.9 x 5.1	✳	.25	.19	.17
154860CF	TM1/25	1µF	25	3.0 x 6.0	✳	.29	.25	.22
33662CF	TM1	1µF	35	4.5 x 7.0	✳	.29	.25	.22
94001CF	TM2.2/16	2.2µF	16	4.5 x 7.0	✳	.29	.25	.22
94019CF	TM2.2/25	2.2µF	25	4.5 x 7.0	✳	.35	.29	.25
33734CF	TM2.2	2.2µF	35	4.5 x 7.5	.39	.35	.29	.22
33769CF	TM3.3	3.3µF	35	4.5 x 7.5	.63	.56	.49	.39
94035CF	TM4.7/16	4.7µF	16	4.5 x 7.5	.47	.38	.28	.20
94043CF	TM4.7/25	4.7µF	25	5.0 x 8.5	.50	.45	.35	.20
33806CF	TM4.7	4.7µF	35	5.5 x 9.0	.55	.48	.37	.27
33873CF	TM6.8	6.8µF	35	6.0 x 10.0	.62	.55	.40	.36
94060CF	TM10/16	10µF	16	5.0 x 9.0	.45	.39	.29	.25
94078CF	TM10/25	10µF	25	5.5 x 9.0	.59	.50	.40	.36
33689CF	TM10	10µF	35	6.0 x 10.0	.89	.79	.69	.59
33718CF	TM15	15µF	25	6.0 x 10.0	.89	.80	.65	.49
33751CF	TM22	22µF	6.3	5.0 x 9.0	.45	.35	.31	.27
94094CF	TM22/16	22µF	16	6.0 x 10.0	.69	.59	.49	.45
94107CF	TM22/25	22µF	25	7.0 x 10.5 ~~$2.85~~	1.79	1.59	.99	.85
33785CF	TM33	33µF	25	8.0 x 13.0	2.59	2.25	1.79	1.10
94123CF	TM47/16	47µF	16	8.0 x 13.0	1.69	1.55	1.35	.95
33822CF	TM47	47µF	25	9.0 x 14.5	3.29	2.95	2.59	2.39
33700CF	TM100	100µF	6.3	7.0 x 10.5	1.19	1.09	.95	.85

*Capacitor dimensions and styles may vary

5mm Ceramic Trimmer Capacitor

- Working voltage: 200VDC
- Withstand voltage: 400VDC
- Turning torque: 35-200 g-cm
- Operating temperature range: -30˚C~+85˚C
- Insulation resistance: >10MΩ min. @ 250VDC

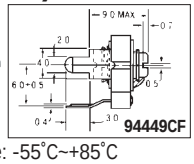


Part No.	Capacitance Range (pF)	Q Factor @ 1MHz	Color Codes	Pricing 1	10	100	1000
136979CF	9.0-50.0	> 200	Green	$.89	$.79	$.69	$.59

8mm .315" Ceramic Trimmer Capacitors (250WVDC) Thru Hole

- Working voltage: 250VDC
- Withstand voltage: 550VDC
- Turning torque: 40~200 g-cm


134818CF



94449CF

- Operating temperature range: -55˚C~+85˚C
- Insulation resistance: 10MΩ min. @ 250VDC

Part No.	Capacitance Range (pF)	Q Factor @ 1MHz	Color Codes	Pricing 1	10	100	1000
134818CF	3.5–13.0	> 300	Ivory	$.69	$.65	$.50	$.39
32838CF	4.0–34.0	> 300	Yellow	.99	.79	.69	.59
32854CF	6.0–70.0	> 200	Nil	1.05	.85	.75	.65
94449CF	8.5–100	> 200	Purple	1.05	.93	.81	.77
94465CF	8.5–120	> 200	Nil	.99	.79	.65	.59

Memory Back-Up Capacitors

Applications:

- Back-up on CMOS microcomputers, static RAM, DTSs (digital tuning systems)
- Memory back-up of remote controllers


142922CF


227811CF

Features:

- Excellent voltage holding characteristics for low back-up currents
- Small size vs. capacitance
- Voltage: 5.5VDC
- Capacitance ranges from .047 to 1F

Capacitor dimensions and lead spacing may vary

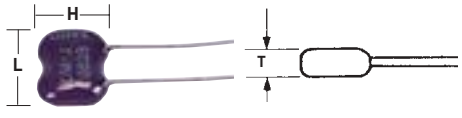
Part No.	Mfr. Cross Ref. No.	Capacitance (Farad)	Pricing 1	10	100
142922CF	MBC.047/5.5	.047 ~~$1.85~~	$1.65	$1.43	$1.25
142949CF	MBC.22/5.5	.22	2.29	1.99	1.60
143010CF	MBC.47/5.5	.47	3.49	2.95	2.25
142957CF	MBC1.0/5.5	1.0	4.75	4.29	3.49
227811CF	S5R5V105	1.0	4.99	3.99	3.29



See page 121 for Mylar & Dipped Tantalum Capacitor Cabinet Kits.

Dipped Silver Mica Capacitors (±5%)

Metalized Polyester Film Capacitors



Case type	DM15
Lead space (in.)	.23
Tolerance	±5%
Operating temperature range	-55°C to +125°C
Size (mm) – L x T x H*	11 x 4 x 9

*Capacitor dimensions and style may vary

Part No.	Mfr. Cross Ref. No.	Capacitance	Volt. (V)	Pricing 1	10	100	1000
15991CF	DM100	10pF	500	$.49	$.39	$.29	$.25
16037CF	DM220	22pF	500	.49	.39	.29	.23
16070CF	DM330	33pF	500	.49	.39	.29	.23
16096CF	DM470	47pF	500	.49	.39	.29	.25
16002CF	DM101	100pF	500	.49	.39	.31	.27
16088CF	DM331	330pF	500	.95	.75	.55	.35
16109CF	DM471	470pF	500	1.05	.95	.79	.65
16011CF	DM102	1000pF	100	1.19	.99	.89	.79



See page 83 for Surface Mount Capacitors



1/4-Watt Carbon Film Resistors (±5%)



Single Resistor Value Pricing: 1/4-Watt Carbon Film Resistors (±5%)

To order: Use 5-digit part number adjacent to ohms in chart below
Values may not be combined for quantity price breaks

99¢/bag 100 piece bags

Pricing (Sold in bags of 100 pieces)				
Specify Part No. & Resistor Value	1 Bag	10 Bags	50 Bags	100 Bags
(see Standard Resistor Value Chart below)	$.99/bag	$.57/bag	$.49/bag	$.46/bag

Assortment Pricing: 1/4-Watt Carbon Film Resistor (±5%)

Assortments may not be combined for quantity price breaks

Part No.	Description (Including bulk pack values)	1	10	25
10719CF	5 ea. 70 values (every other value from 10Ω - 5.6 MΩ) (350 pcs.)	$9.95	$8.95	$7.95
103165CF	10 ea. 24 values marked (●) and 50 ea. 6 values marked (✕) (540 pcs.)	12.95	11.49	9.95
10663CF	100 ea. 27 values marked (▲) (2,700 pcs.)	24.95	22.49	20.49
10655CF	100 ea. 160 values (all resistor values in the chart below) (16,000 pcs.)	119.95	107.95	96.95
81832CF	1/4-watt resistor component cabinet kit – 30 values (540 pcs.), pg 120	27.95	24.95	22.49

Standard Resistor Values Chart

▲● see table on top right

Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms
30293CF	2.2	59192CF	15	29946CF ▲✕	100	31499CF ▲●	680	31026CF ▲✕	4.7k	30841CF ▲●	33k	30525CF	220k	29778CF	1.5M
30349CF	2.4	30197CF	16	30040CF	110	31561CF	750	31237CF ▲●	5.1k	30912CF	36k	30576CF	240k	29794CF	1.6M
30373CF	2.7	30234CF	18	30082CF	120	31624CF	820	31270CF ▲●	5.6k	30955CF	39k	30613CF	270k	29815CF	1.8M
30621CF	3.0	30411CF	20	30120CF	130	31691CF	910	31405CF	6.2k	31077CF	43k	30808CF	300k	30285CF	2.0M
30656CF	3.3	65736CF	22	30162CF ▲●	150	29663CF ▲✕	1.0k	31430CF	6.8k	31149CF ▲●	47k	30883CF	330k	30331CF	2.2M
30699CF	3.6	30541CF	24	59248CF	160	29719CF	1.1k	31536CF	7.5k	31309CF	51k	30939CF	360k	30365CF	2.4M
30728CF	3.9	30584CF	27	59281CF	180	29735CF ●	1.2k	31595CF	8.2k	31350CF	56k	30971CF	390k	30402CF	2.7M
30980CF	4.3	30752CF	30	59424CF	200	58931CF	1.3k	60353CF	9.1k	31456CF	62k	31093CF	430k	30648CF	3.0M
59811CF	4.7	30824CF	33	30470CF ▲✕	220	29760CF ▲●	1.5k	29911CF ▲✕	10k	31481CF	68k	31202CF ▲●	470k	30681CF	3.3M
31211CF	5.1	30904CF	36	30568CF	240	29786CF	1.6k	30031CF	11k	31552CF	75k	31325CF	510k	30710CF	3.6M
31253CF	5.6	59723CF	39	30605CF ▲●	270	29807CF	1.8k	30074CF	12k	31616CF	82k	31384CF	560k	30744CF	3.9M
31392CF	6.2	31069CF	43	30795CF	300	30277CF ▲●	2.0k	30111CF	13k	31683CF	91k	31472CF	620k	31051CF	4.7M
31421CF	6.8	31106CF ▲●	47	30867CF ▲●	330	30314CF ▲●	2.2k	30146CF ▲●	15k	29997CF ▲✕	100k	31501CF	680k	31245CF	5.1M
31528CF	7.5	31296CF	51	30921CF	360	30357CF	2.4k	30200CF	16k	30058CF	110k	31579CF	750k	59934CF	5.6M
31587CF	8.2	31341CF	56	30963CF ●	390	30390CF ▲●	2.7k	30242CF	18k	30091CF	120k	31632CF	820k	31413CF	6.2M
31641CF	9.1	60089CF	62	31085CF	430	30630CF	3.0k	30429CF ●	20k	30138CF	130k	31704CF	910k	31448CF	6.8M
29882CF ▲●	10	60134CF	68	31165CF ▲●	470	30672CF ▲●	3.3k	30453CF ▲●	22k	30171CF	150k	29698CF ▲●	1.0M	60206CF	7.5M
59061CF	11	60222CF	75	31317CF	510	30701CF	3.6k	30550CF	24k	30226CF	160k	29727CF	1.1M	31608CF	8.2M
30066CF	12	60302CF	82	31376CF	560	30736CF	3.9k	30592CF	27k	30269CF	180k	29743CF	1.2M	31667CF	9.1M
30103CF	13	31675CF	91	31464CF	620	59782CF	4.3k	30779CF	30k	30437CF	200k	29751CF	1.3M	29938CF ▲●	10M

1/8-Watt Carbon Film Resistor (±5%) Assortments

Any 1/8 or 1/2-Watt Resistor value (below) can be special ordered – 1000 pc minimum
• 1/8-W – $12.95/k (bulk) • 1/2-W – $15.95/k (bulk)

Part No.	Cross Ref. No.	Values included	Description (see chart below)	Pricing 1	Pricing 10
108302CF	ASST1830	✗ #	10 ea. of 24 values marked by ✗ and 50 ea. of 6 values marked below by # (540 pcs.)	$12.95	$11.49
108290CF	ASST1827	✔	100 ea. of 27 values marked by ✓ (2,700 pcs.)	29.95	26.95
108329CF	CAB182R	– –	1/8-watt resistor component cabinet kit – 30 values (540 pcs.), see page 120 ~~$27.95~~	24.95	22.49

1/8 & 1/2-Watt Resistor Assortments Value Chart (Ohms)

10 ✓✗	150 ✓✗	330 ✓✗	680 ✓✗	2.0k ✓✗	3.3k ✓✗	5.6k ✓✗	15k ✓✗	33k ✓✗	470k ✓✗
47 ✓✗	220 ✓#	390 ✗	1.0k ✓#	2.2k ✓✗	4.7k ✓#	6.8k ✗	22k ✓✗	47k ✓✗	1.0M ✓✗
100 ✓#	270 ✓✗	470 ✓✗	1.5k ✓✗	2.7k ✓✗	5.1k ✓✗	10k ✓#	27k ✗	100k ✓#	10M ✓✗

(✓), (✗), (#) symbols indicate Resistor values included in Assortments above and below.

1/2-Watt Carbon Film Resistor (±5%) Assortments

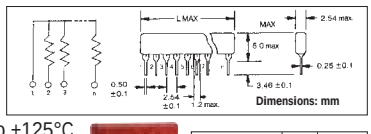
Any 1/8 or 1/2-Watt Resistor value (above) can be special ordered – 1000 pc minimum
• 1/8-W – $12.95/k (bulk) • 1/2-W – $15.95/k (bulk)

Part No.	Cross Ref. No.	Values Included	Description (see chart above)	Pricing 1	Pricing 10
107852CF	ASST1230	✗ #	10 ea. of 24 values marked by ✗ and 50 ea. of 6 values marked by # (540 pcs.)	$14.95	$13.49
107844CF	ASST1227	✔	100 ea. of 27 values marked by ✓ (2,700 pcs.)	34.95	31.49
107836CF	ASST1270	–	5 ea. of 70 values (every other value from 10Ω - 5.6MΩ)(350 pcs.) (see chart above)	10.95	9.95
107879CF	CAB12R	–	1/2-watt resistor component cabinet kit – 30 values (540 pcs.), see page 120	29.95	26.95

Single-In-Line "SIP" Resistor Networks (±2%)

8 and 10-Pin Bussed (125mW/Resistor) ±2%

Features (8BRN/10BRN):
- **8-pin package (7 resistors) = 8BRN**
  10-pin package (9 resistors) = 10BRN
- Rated power per resistor at 70°C: 125mW/ resistor
- Operating temperature range: -55°C to +125°C
- Resistance temperature coefficient: 200ppm/°C
- Max. working voltage: 100V or rated power x resistance, whichever is smaller
- Insulation resistance: 10,000MΩ min. at 100V
- Solderability: per MIL-R-83401
- Low profile 5mm (.200" body ht.)
- Low profile is compatible w/ DIPs
- Cermet thick film construction





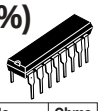
✳ 10 piece minimum

Pricing per each			
1	10	100	1000
✳	$.26	$.22	$.16
Pricing for P/N 97826			
✳	$.22	$.19	$.13

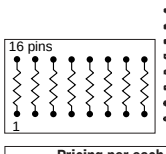
Part No.	Pins	Ohms
97826CF	8	10k
97851CF	10	330
97869CF	10	470
97877CF	10	1.0k
97893CF	10	2.2k
24660CF	10	4.7k
24643CF	10	10k
98087CF	10	47k
98095CF	10	100k

Dual-In-Line "DIP" Resistor Networks (±2%)

16-Pin Isolated (140mW/Resistor) ±2%



Features (16IRN):
- Maximum operating voltage: 100V • Tolerance: ±2%
- Temperature coefficient: ±100ppm/°C
- Operating temp.: -55°C to +125°C
- Insulation resistance: 10,000MΩ min.
- Lead solderability/solvent resistance: meets requirements of MIL-R-83401
- Power rating at 70°C: 2.25 watts
- Compatible with automatic insertion equipment
- Copper leads for excellent heat dissipation



Pricing per each			
1	10	100	1000
$.49	$.43	$.37	$.31

Part No.	Ohms
164005CF	33
108556CF	100
108564CF	220
108572CF	330
108581CF	470
108599CF	1.0k
108610CF	4.7k
108628CF	10k
108644CF	100k

SIP and DIP Resistor Network Cross Reference Chart

Jameco	CTS	A – B	Bourns	Dale	Beckman	Sprague	MEPCO
8BRN…	770-81-R…	708A…	4608X-101…	CSC08A01…	L08-1-R…	356CF… X2PD	9S08… GL002
10BRN…	770-101-R…	710A…	4610X-101…	CSC10A01…	L10-1-R…	256CX … X2PD	9S10… GL002
16IRN…	761-3-R…	316B…	4116R-001…	MDP16-03…	898-3-R…	916C… X5SR	D16H… 12-J

5-Watt Linear Taper Wire Wound (±20%)



- Temperature range: -10˚C to 70˚C
- Shaft diameter: 0.23" (6mm)
- Shaft length: 0.67", except P/N 140521CF (0.25")
- Mounting hole: 0.32"
- Max. panel thickness: 0.1" • Non-rotational key

Includes: Mounting hardware

Part No.	Mfr. Cross Ref. No.	Ohms	Pricing 1	10	50	100
140513CF	PW5B100	100	$2.99	$2.69	$2.39	$2.15
140521CF	PW5B500	500	2.95	2.65	2.39	2.15

2-Watt Linear Taper (±20%)



- Temp. range: -10˚C to +70˚C
- Shaft diameter: 0.25"
- Mounting hole: 0.375"
- Non-rotational key • Length: 0.825"
- Base length: 0.25" • See knobs, pg 111

Includes: Mounting hardware

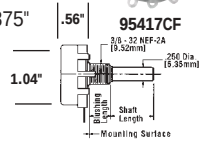
Part No.	Mfr. Cross Ref. No.	Ohms	Pricing 1	10	100	500
123959CF	PT1K	1k	$3.29	$2.99	$2.65	$2.39
123967CF	PT5K	5k	3.29	2.99	2.65	2.39

2-Watt Linear Taper (±10%)



- 2W @ 70˚C ambient
- Conductive plastic element
- Military No.: RV4N-AYSD
- Temp. range: -55˚C to +120˚C
- Non-rotational key
- Shaft: dia.: 0.25"; length: 0.875"
- Mounting hole: 0.375"
- Max. panel thickness: 0.25"
- See knobs page 111

Includes: Mounting hardware



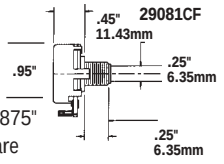
Part No.	Product No.	Ohms	1	10	50	100
183610CF	53C3-500	500	$7.95	$6.95	$5.95	$5.25
13936CF	CMU1021	1k	7.95	6.95	5.95	5.25
13995CF	CMU5021	5k	7.95	6.95	5.95	5.25
13952CF	CMU1031	10k	7.95	6.95	5.99	5.25
95417CF	CMU5031	50k	7.95	6.95	5.95	5.25
13979CF	CMU1041	100k	7.95	6.95	5.95	5.25

1/2-Watt Linear Taper (±10%)



- Temperature range: -55˚C to +125˚C
- Non-rotational key
- Non-slotted shaft end
- Mounting hole: 0.3125"
- Shaft diameter: 0.25"
- Shaft length: 0.50"
- Max. panel thickness: 0.1875"

Includes: Mounting hardware



Part No.	Mfr. Cross Ref. No.	Ohms	Pricing 1	10	100	500
29049CF	P1K	1k	$.99	$.79	$.65	$.55
29196CF	P5K	5k	.99	.79	.65	.55
29081CF	P10K	10k	.99	.79	.65	.55
29102CF	P100K	100k	.99	.79	.65	.55
29065CF	P1MEG	1M	.99	.79	.65	.55



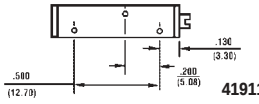
See pages 121 & 122 for Potentiometer Cabinet Kits & Grab Bags.

3/4-Watt, 3/4" Rectangular 15-Turn Linear Cermet (±10%)

- PC pins: .100" grid (2.54mm)
- Side adjusting
- Sealed to guard against contaminants
- Temp. range: -55˚C to +125˚C

Cross Reference Chart

Equivalent to:	
Allen Bradley	94P
Beckman	89PR
Bourns	3006P
Litton	6034Y
Mepcopal	8034
Murata	2101P
Spectrol	43P
VRN	961-20
Weston	830P





Part No.	Mfr. Cross Ref. No.	Ohms	Pricing 1	10	100	500
181972CF	43P201	200	$1.15	$1.05	$.85	$.60
41937CF	43P500	500	1.15	.99	.89	.69
41785CF	43P1K	1k	1.15	.99	.89	.79
41865CF	43P2K	2k	1.15	.99	.89	.69
41890CF	43P5K	5k	1.15	.99	.89	.69
41822CF	43P10K	10k	1.15	.99	.89	.69
41873CF	43P20K	20k	1.15	.99	.89	.69
41911CF	43P50K	50k	1.15	.99	.89	.69
41849CF	43P100K	100k	1.15	.99	.89	.69
63001CF	43P200K	200k	1.15	.99	.89	.69
41953CF	43P500K	500k	1.15	.99	.89	.69
41806CF	43P1MEG	1M	1.15	.99	.89	.69

1/4-Watt Miniature Linear (±20%)

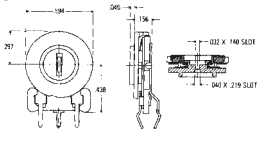
X201 (19/32") Vertical Mount



- 15mm thick
- Voltage rating: 350 VDC
- Reliable CTS composition resistance element
- Power rating: below 5kΩ – 1/4 watt @ 40˚C; 5kΩ & above – 1/4 watt @ 55˚C
- Total rotation: 260˚ ±5˚

Cross Reference Chart

Equivalent to:	
CTS	X201R
Bourns	3355X
PIHER	PT15

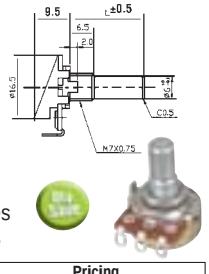


Part No.	Mfr. Cross Ref. No.	Ohms	Pricing 1	10	100	500
94692CF	X201R1K	1k	$.45	$.35	$.31	$.28
35502CF	X201R252B	2.5k	.45	.35	.31	.28
94705CF	X201R5K	5k	.45	.35	.31	.28
94713CF	X201R10K	10k	.45	.35	.31	.28
172136CF	X201R25K	25k	.45	.35	.31	.28
94721CF	X201R50K	50k	.45	.35	.31	.28
94730CF	X201R100K	100k	.43	.33	.31	.28

0.2-Watt Linear Taper (±20%)

- Number of detents: 10
- Shaft diameter: 0.235"
- Shaft length: 0.605"
- Insulation resistance: 100MΩ @ 500VDC
- Mounting hole: 0.27"
- Max. panel thickness: 0.15"
- Max. operating voltage: 150VAC
- Rotational life: 15,000 cycles

Includes: Mounting hardware



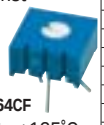
Part No.	Mfr. Cross Ref. No.	Ohms	Pricing 1	10	100	500
163563CF	PMD401	10k	$1.65	$1.49	$1.19	$.85

1/2-Watt, 3/8" Square, Single-Turn Cermet (±10%)

- 1/2 watt linear taper @ 70°C
- PC pins: .100" grid (2.54mm)
- Sealed to guard against contaminants
- Pin spacing: 0.1" († P/N 43060CF & P/N 105216CF: 0.2")
- Top adjusting
- Temp. range: -55˚C to +125˚C

Cross Reference Chart

Equivalent to:	
Allen Bradley	E2B
Beckman	72PR
Bourns	3386P
Mepcopal	8038
Murata	3104P
Spectrol	63P
VRN	780-12P
Weston	840P



Part No.	Mfr. Cross Ref. No.	Ohms	Pricing 1	10	100	500
43123CF	63P500	500	$.79	$.65	$.55	$.45
42964CF	63P1K	1k	.79	.65	.55	.45
43043CF	63P2K	2k	.79	.65	.55	.45
43078CF	63P5K	5k	.79	.65	.55	.45
43001CF	63P10K	10k	.79	.65	.55	.45
43051CF	63P20K	20k	.79	.63	.47	.33
43107CF	63P50K	50k	.79	.65	.55	.45
43027CF	63P100K	100k	.79	.65	.55	.45
43060CF	63P300K†	300k	.79	.63	.47	.33
63212CF	63P500K	500k	.79	.65	.55	.45
42981CF	63P1MEG	1M	.79	.65	.55	.45
105216CF	63P2MEG†	2M	.79	.63	.47	.33

Multi-Turn (±10%)

- Resistance tolerance: ±10%
- Insulation resistance: (500VDC) 1000MΩ min.

Series 3299:

- 25-turn; cermet type
- Absolute minimum resistance: 2Ω or 1% max.
- Load life: 200 cycles, 0.5W



Series 3540:

- 10-turn; wirewound
- Absolute minimum resistance: 1Ω or 0.1% max.
- Load life: 1000 hours, 2W



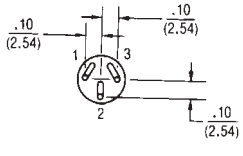
Part No	Product No.	Ohms	Pricing 1	10	50
183556CF	3299W-1-102	1k	~~$2.95~~ $2.49	$2.19	$1.99
183564CF	3299W-1-103	10k	~~$2.95~~ 2.49	2.19	1.99
183572CF	3299W-1-104	100k	~~$2.95~~ 2.49	2.19	1.99
183548CF	3540S-1-502	5k	~~$13.49~~ 12.79	12.35	11.89
183521CF	3540S-1-103	10k	~~$13.49~~ 12.79	12.35	11.89

1/2-Watt, 1/4" Round, Cermet (±10%)

- Sealed to withstand wave soldering and immersion cleaning process
- Extended temperature range: -55˚C to +150˚C • TO-5 grid
- Top adjustment
- Terminals: solderable pins

Cross Reference Chart

Equivalent to:	
Beckman	82M
Bourns	3329P
Mepcopal	8050
MEC	471
Murata	3321P
Spectrol	62-3
VRN	171
Weston	567





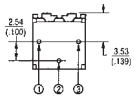
Part No.	Mfr. Cross Ref. No.	Ohms	Pricing 1	10	100	500
95441CF	3329P1K	1k	$1.99	$1.59	$1.19	$.84
95450CF	3329P5K	5k	1.69	1.39	1.27	1.15
96719CF	3329P10K	10k	1.95	1.69	1.49	1.39
95484CF	3329P100K	100k	1.79	1.49	1.19	.99

1/2-Watt Trimming Potentiometers (±10%)

- Linear taper
- Absolute min. resistance: 1% or 2Ω max.
- Contact resistance variation: 1% or 3Ω max.
- Insulation resistance: 500VDC; 1,000MΩ min.
- Rotational life: 200 cycles
- Terminals: solderable pins


191644CF


191409CF


3362P Series

Cross Reference Chart

Equivalent to:	
3362P Series	
Bourns	3362P
Copal	CT-6P
Murata	PVC6
Vishay	76
3299Y Series	
Bourns	3299Y
Spectrol	64Y
Vishay	1248
Murata	PV37W

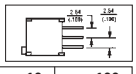
3362P Series

- Top adjustment: 240˚ nominal
- Wiper positioning: 50% nominal

Part No.	Mfr. Cross Ref. No.	Ohms	1	10	100	500
191644CF	3362P-1-200	20	$.77	$.65	$.55	$.48
189341CF	3362P-1-500	50	.77	.65	.55	.48
182810CF	3362P-1-501	500	.77	.66	.41	.29
182828CF	3362P-1-502	5k	.77	.65	.55	.48
182836CF	3362P-1-103	10k	.77	.65	.55	.48
182844CF	3362P-1-204	200k	.77	.65	.55	.48
182852CF	3362P-1-105	1M	.77	.65	.55	.48

3299Y Series • 3/8" square, 25-turn potentiometer

• Load Life: 1,000 hours 0.5W @ 70˚C • Wipers set @ CW end



Part No.	Mfr. Cross Ref. No.	Ohms	1	10	100
191417CF	3299Y-1-501	500	$2.25	$2.09	$1.65
191396CF	3299Y-1-102	1k	2.25	2.09	1.65
191425CF	3299Y-1-502	5k	2.25	2.09	1.65
191409CF	3299Y-1-104	100k	2.25	2.09	1.65

NTC Thermistors

- Typical applications: temperature measurement/control/compensation; power supply fan control; PCB temperature monitoring
- Operating temperature range: -30˚C ~ +130˚C
- Maximum allowable power (@ 250˚C): 0.55W
- Thermal dissipation factor: 6.5mW/0C (@ 250˚C)
- Resistance value allowable difference: 10%

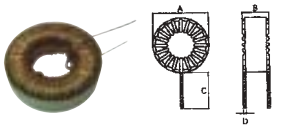


Part No.	Mfr. Cross Ref. No.	Resistance (Ω @ 25˚C)	B Constant (25/50˚C >10%)	Temp. Coef. @ 25˚C (%/˚C)	Pricing 1	10	100	500
207520CF	NTC-101	100	3100	-3.5	$.59	$.53	$.40	$.33
207511CF	NTC-201	200	3100	-3.5	.59	.53	.40	.33
207503CF	NTC-301	300	3100	-3.5	.31	.28	.25	.23
207491CF	NTC-501	500	3100	-3.5	.59	.53	.40	.33
207482CF	NTC-102	1k	3800	-4.3	.59	.53	.40	.33
207474CF	NTC-202	2k	3800	-4.3	.59	.53	.40	.33
207466CF	NTC-302	3k	3900	-4.4	.31	.28	.25	.23
207458CF	NTC-402	4k	3900	-4.4	.31	.28	.25	.23
207440CF	NTC-502	5k	3900	-4.4	.59	.53	.40	.33
207036CF	NTC-103	10k	4100	-4.6	.59	.53	.40	.33
207028CF	NTC-153	15k	4100	-4.6	.59	.53	.40	.33
207010CF	NTC-203	20k	4200	-4.7	.59	.53	.40	.33
207001CF	NTC-503	50k	4200	-4.7	.59	.53	.40	.33
206990CF	NTC-104	100k	4400	-4.9	.59	.53	.40	.33
206981CF	NTC-204	200k	4500	-5.1	.31	.28	.25	.23

High Current Toroid Inductors

5700 Series

- Low radiation • Low core loss
- High current capacity
- Size: A = 22.22mm max.; B = 11.09mm max.; C = 15.0±1.0mm; D = 1.2±0.5mm
- See page 48 for EMI suppression cores

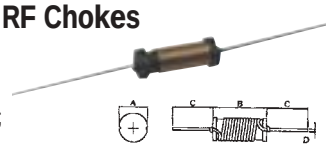


Part No.	L (µH)	IDC max. (A)	L min. @ IDC	1	50	100	250
208258CF	10	11.0	5	$2.99	$2.69	$2.39	$2.19
208266CF	25	5.5	12	2.99	2.69	2.39	2.19
208311CF	50	9.5	25	3.99	3.59	3.19	2.89
208303CF	75	5.0	40	3.39	2.99	2.69	2.39
208274CF	125	2.75	70	2.99	2.69	2.39	2.19
208320CF	150	4.75	85	3.99	3.59	3.19	2.89
208282CF	275	2.0	150	3.39	2.99	2.69	2.39
208291CF	450	1.5	250	3.39	2.99	2.69	2.39

Axial Leaded RF Chokes

4600 Series

- Inductive tolerance: 10%
- Test frequency: 7.9MHz
- Size: A = 6.8mm max.; B = 19.0mm max.; C = 25.0±2.0mm; D = 0.65±0.5mm



Part No.	L (µH)	Q (min.)	Res. Freq Min. (MHz)	DCR Max. (µ)	Max. DC Current (mA)	Pricing 1	100	250
208063CF	1.0	60	190	.050	2000	$.69	$.55	$.43
208071CF	1.5	58	149	.093	1800	.69	.55	.43
208080CF	2.4	56	120	.190	1500	.69	.55	.43
208098CF	3.9	60	93	.450	1000	.69	.55	.43
208101CF	5.5	57	80	.670	850	.69	.55	.43
208119CF	6.2	57	76	.830	700	.69	.55	.43
208127CF	8.2	57	65	1.2	600	.69	.55	.43
208135CF	10	36	61	1.5	500	.69	.55	.43

Epoxy Conformal Coated Chokes

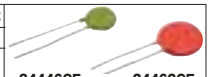
- Operating temperature: -25°C to +85°C
- Tolerance: 5%
- Size: A = 3.2mm max.; B = 7.0mm max.; C = 0.48±0.5mm (except P/N 208143: 0.50±.05mm); D = 63±3mm



Part No.	L (µH)	Q (min.)	Test. Freq (MHz)	Res. Freq Min. (MHz)	DCR Max. (µ)	Max. DC Curr. (mA)	Pricing 1	100	250
208143CF	10	60	7.96	28.7	1.56	670	$.49	$.39	$.29
208151CF	27	50	2.52	10.2	2.39	410	.49	.39	.29
208160CF	33	50	2.52	8.4	2.71	380	.49	.39	.29
208178CF	47	50	2.52	6.9	3.3	330	.49	.39	.29
208186CF	82	45	2.52	5.4	4.62	240	.39	.31	.23
208194CF	100	45	2.52	5.0	4.98	240	.49	.39	.29
208207CF	220	45	0.796	3.3	9.23	180	.49	.39	.29
208215CF	330	45	0.796	2.7	13.2	140	.39	.31	.23
208223CF	470	45	0.796	2.2	21.4	120	.49	.39	.29
208231CF	820	45	0.796	1.7	28.4	90	.39	.31	.23
208240CF	1000	45	0.796	1.5	31.3	80	.49	.39	.29

LA Series Varistors (Radial Lead)

- AC power line applications
- Power supplies
- UL recognized as "transient voltage surge suppressors"
- UL recognized as "across-the-line components"
- High energy absorption


34446CF 34462CF

LA Series Part No.	Mfr. Cross Ref. No.	Size Disc. Dia. (mm)	Max. Ratings (+85°C) Continuous RMS Volt. $V_{m(ac)}$ Volts	Continuous DC Volt. $V_{m(dc)}$ Volts	Transient Energy (10/1000µs) W_{tm} Joules	Characteristics at 25°C Max Clamping Volt. @ Ip Value Curr. (8/20µs) V Volts	Ip=2.0A Amps	Pricing 1	10	100	1000
34446CF	V130LA10A	14	130	175	38	340	50	$.55	$.49	$.45	$.39
34471CF	V250LA20A	14	250	330	72	650	50	.58	.52	.47	.42
34462CF	V130LA20A	20	130	175	70	340	100	SALE .54	.52	.50	.48

ZA Series Varistor (Radial Lead)

- Low DC voltage applications
- UL recognized as "transient voltage surge suppressors"
- Used for highly sensitive devices • Low transient energy
- Printed circuit board designs • Computer equipment • Alarm systems



ZA Series Part No.	Mfr. Cross Ref. No.	Size Disc. Dia. (mm)	Characteristics at 25°C Varistor Voltage @ 1 mA DC Test Current Min. Volts	$V_{N(dc)}$ Volts	Max. Volts	Max. Clamping Volt. @ Ip Value Curr. (8/20µs) V Volts	Ip=2.0A Amps	Pricing 1	10	100	1000
190449CF	V18ZA1	7	16.0	18.0	20.0	35	2.5	$.25	$.20	$.15	$.12

Order Anytime 24x7x365

Color Code Legend: New Sale Qty Save Closeout

Scott Edwards Electronics, Inc. Serial LCD Displays

- Includes instruction codes for character generation, cursor control, printing, etc. Examples for Stamps in PBASIC included.
- One-year warranty

Ideal for use w/ BASIC Stamps (pg 210), 80C52-BASIC controllers (pg 71) and PCs!

16 characters x 2 lines Integrated Display



- 1200–9600bps serial input with 16-byte input buffer
- Four inputs for switches/buttons that can be read via the serial connection
- EEPROM storage of settings, six custom characters, and a text screen that can be automatically displayed at startup (splash screen)
- Serial control of the standard LED backlight
- Low current draw; 5mA (backlight off) to 40mA (backlight on and bright)
- Power requirement: 4.8 – 5.5VDC @ 5mA (recommend P/N 164101CF, pg 54)
- Module size: 3.2"L x 2.0"W x 0.5"T

Part No.	Description	1	10	25
150990CF	LCD module	$48.95	$44.09	$39.65

16 characters x 2 lines LCD Serial Backpack®



- High-contrast supertwist display
- Serial "backpack" accepts RS232, or inverted CMOS, TTL at 2400 or 9600bps
- Power requirement: 4.8 – 5.5VDC @ 3mA (recommend P/N 164101CF, pg 54)
- Connector: 5-pin header (recommend P/N 163686CF, pg 138)
- Module size: 3.1"L x1.4"W x0.7"T

Part No.	Description	1	10	25
133129CF	LCD module	$59.95	$53.99	$48.99

20 Characters x 4 Lines Graphics LCD



- 120 x 32 pixel graphics screen
- 2400 or 9600 bps serial input
- EEPROM stores text font and 6 full-screen images
- Supports multiple fonts and font sizes
- Included utility program lets you create and download pictures and fonts
- Power requirement: 9V battery or 5V power supply (recommend P/N 164101CF, pg 54)
- Module size: 3.1"L x 1.9"W x 0.8"T

Includes: Battery snap connectors, sample programs and manual on disk

Part No.	Description	1	10
158166CF	20 x 4 serial LCD display	$119.95	$107.99

40 characters x 4 lines LCD Serial Backpack®



- High-contrast supertwist display with unique "big character": backlit mode – prints 1" numbers and letters automatically
- Serial input at 1200, 2400, 4800 or 9600bps
- Power requirement: 5VDC @ <10mA (recommend P/N 164101CF, pg 54)
- Module size: 7.5"L x 2.2"W x 0.9"T

Part No.	Description	1	10
136485CF	40 x 4 serial LCD display	$169.95	$152.95

16 Characters x 2 Lines Serial LCD Display



- Backlight control, bar graphs, large digits, multiple displays, software contrast control, auto line wrapping, and auto scroll feature
- Serial input at 1200–19,200bps (jumper selectable)
- Connect 16 modules using same 2 wire interface
- Backlight supply current: 40mA typical
- Power requirement: 5VDC @ 9mA (recommend P/N 164101CF, pg 54)
- Display size: 2.5"L x 0.7"W
- Weight: 0.6 lbs.
- Module size: 3.2"L x 1.5"W x 0.8"T

Includes: Manual and software

Part No.	Description	1	10	25
174166CF	16 x 2 w/ interface	~~$64.95~~ $52.39	$51.19	$49.95

20 x 4 Serial LCD Display



150957CF



157323CF

- 20 characters x 4 line display with large digit mode
- Backlight control, bar graphs, large digits, multiple displays, software contrast control, auto line wrapping and auto scroll feature
- Backlight supply current: 90mA typical
- Serial input at 1200–19,200bps (jumper selectable)
- Connect 16 modules using the same 2 wire interface
- Display size: 3.0"L x 1.0"W
- One-year warranty

Includes: Manual and software

150957CF: 20 x 4 Serial LCD Module

- Power requirement: 5VDC @ 10mA typical (recommend P/N 164101CF, pg 54)
- Module size: 3.9"L x 2.4"W x 0.7"T
- Weight: 0.9 lbs.

157323CF: 20x4 Serial LCD Module with keypad Interface

- Power requirements: 5VDC @ 16mA typical (recommend P/N 164101CF, pg 54)
- Module size: 3.7"L x 2.4"W x 1.1"T
- Weight: 0.6 lbs.

Part No.	Description	1	10	25
150957CF	LCD module	~~$69.95~~ $54.19	$52.69	$51.19
157323CF	Module w/ interface	~~$109.95~~ 72.95	71.15	68.99

Serial Graphics LCD Display

40 characters x 8 lines Maximum

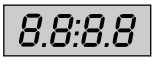


- 40 characters x 8 lines max. display with 5 x 7 font
- Backlight control, bar graphs, large digits, multiple displays, software contrast control, auto line wrapping, and auto scroll feature
- Pixel layout: 240 x 64 pixels
- Serial input: 1200–19,200bps (jumper configurable)
- Backlight supply current: 160mA typical
- Power requirement: 5VDC @ 31mA typical (recommend P/N 164101CF, pg 54)
- Display size: 5.2"L x 1.5"W
- Weight: 0.9 lbs.
- Module size: 7.1"L x 2.6"W x 0.7"T

Includes: Manual and software

Part No.	Description	1	10
174182CF	Graphic display	~~$199.95~~ $165.99	$161.69

VL 0.5" High 4-Digit Field Effect LCD Display





- Compatible with socket P/N 78641CF (2), pg 141
- Pin spacing: 0.1" centers
- 40-pin package (no connector required)
- Size: 2.0"L x 1.2"H x 0.1"D
- Digital multimeters, thermometers, pressure gauges, timers, clocks (12 or 24 hour format) and frequency counters

Part No.	Description	1	10	25
17110CF	4-digit LCD w/ pins	$14.95	$13.49	$12.15



For Single-Board DVM see page 190



30-Day Money-Back Guarantee

If you're not completely satisfied with your purchase, we'll take it back!

Details on page 226.

0.6" High 3½-Digit & 4½-Digit LCD Digital Panel Meters



108388CF 175951CF 146835CF 123140CF

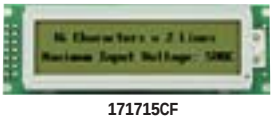
- Input Ranges: 200mV, 20V, 200V, 500V
- Supply voltage: 8-12VDC (recommend 9V battery P/N 151095CF, pg 212)
- Automatic polarity indication
- Input impedance: >100MΩ
- Accuracy: ±0.5%
- Size: 2.7"L x 1.7"W

146835CF: Backlit display

Includes: Bezel

Part No.	Prod. No.	Digits	1	10	25
108388CF	PM-428	3½	$12.95	$11.95	$10.95
175951CF	PM-128	3½	12.95	11.95	10.95
146835CF	PM-188BL	3½	19.95	17.99	16.19
123140CF	PM-328	4½	27.95	24.95	22.49

Parallel LCD Displays



171715CF

- 8-bit interface data bus
- Controller: KS0066U or equivalent
- Character font size: 0.125"W x 0.200"H
- Maximum input voltage: 5.3VDC
- Operating input voltage: 5VDC (recommend P/N 164101CF, pg 54)

171715CF: 16 Characters x 2 Lines

- Display size: 2.5"L x 0.7"W
- Module size: 3.4"L x 1.2"W x 0.5"T

171723CF: 20 Characters x 2 Lines

- Display size: 3.3"L x 0.7"W
- Module size: 4.6"L x 1.5"W x 0.4"T

Part No.	Prod. No.	Decription	1	10	25
171715CF	AC162A	14-pin/term	$19.95	$17.95	$15.95
171723CF	AC2 02A	16-pin/terM	24.95	22.49	20.25

Serial LCD Interface Module

For Parallel LCD Displays with Hitachi 44780 Chipset

TRISYS



- Supports 1 x 8 thru 4 x 20 LCD display formats
- Provides word wrap, control character processing for display blanking, cursor blanking, up-down-left-right cursor controls
- Compatible with P/Ns 151933CF, 171715CF and 198803CF, pg 93
- Size: 1.5"L x 1.0"W

Part No.	Description	1	10	25
157981CF	LCD serial module	$22.95	$20.95	$18.95

LCD MSG II Discrete LCD Message Module

SALE



TRISYS

A simple LCD discrete module that provides the user the ability to display custom messages on a standard LCD module, quickly and easily. The module contains its own embedded processor and non-volatile storage for up to 16 user-definable messages each containing up to 160 characters, plus a 25-character memo message for product I.D. or serialization.

- Switch, up/down, automatic, ticker tape
- Individual message blink attribute
- LCD standalone self-test display
- Negative 5V generation for extended temperature range LCD modules
- Provides serial programmability
- Selectable communication ports/display formats
- Windows® message editor: full copy, cut and paste operations
- Compatible with P/Ns 151933CF, 171715CF and 198803CF, pg 93

Part No.	Description	1	10	25
199646CF	MSG II	$37.15	$33.75	$30.69

16 Characters x 1 Line Parallel LCD Display



- Super twisted nematic gray, transflective type
- Easily interfaced to a microprocessor with common 4-bit and 8-bit parallel inputs/outputs
- Without backlight
- Connected at general purpose CMOS signal level
- Built-in character generator ROM (225 characters @ 5 x 7 dot matrix pattern; RAM (8 different user programmed); and display data RAM (80 x 8-bits)
- Display clear, cursor home, display & cursor ON/OFF, blink character, cursor shift, and display shift feature

Requirements: 4.5VDC – 5.5VDC @ 600mA wall transformer (recommend P/N 171301CF, pg 54)

Part No.	Module Size	1	10	25
198803CF	3.1"L x 1.4"W x 0.3"T	$13.10	$11.75	$10.39

Point Six 16 x 4 Parallel LCD Display



- 16 x 4 character display (.78"H)
- Character font: 5 x 8 dots
- Input data: 4-bit or 8-bit interface available
- Display size: 2.4"L x 1.0"W x 0.06"T
- Module size: 3.4"L x 2.4"W x 0.25"T

Requires: 4.5V @ 2mA wall transformer (recommend P/N 164101CF, pg 54)

Part No.	Description	1	10	25
151933CF	16 x 4 parallel LCD	$24.95	$22.49	$19.95

16 x 4 Parallel LCD Display



- 16 characters x 4 lines
- 5 x 8 dot matrix
- 4-bit or 8-bit parallel interface
- Clear/reflective type LCD display
- Control LSI HD4470 or equivalent and column driver MSM5259 or equivalent
- Display size: 2.4"L x 1.0"H
- Module size: 3.4"L x 2.4"W x 0.3"T

Power requirements: 5VDC @ 2mA max. (recommend P/N 164101CF, pg 54)

Part No.	Description	1	10	25
210761CF	16 x 4 LCD display	$22.95	$19.95	$18.69

20 x 1 Parallel LCD Display



- Built-in controller: HD44780
- Character font size: 0.45"W x 0.26"H
- Maximum input voltage: 5.5VDC
- 14-pin terminal
- Operating input voltage: 5VDC
- Display size: 6.5"L x 1.3"W
- Module size: 7.2"L x 1.6"W x 0.4"T
- Weight: 0.3 lbs.

Part No.	Description	1	10	25
206615CF	LCD Module	~~$49.95~~ $39.95	$34.95	$29.95

40 x 2 Parallel LCD Display with Backlight



- 40 x 2 lines character display
- Control chip HCD44780
- Character font: 5 x 8 dots
- Column driver: KS0063B
- Backlight: yellow-green
- Supply voltage (logic): 5VDC @ 5mA
- Display size: 5.81"L x 0.45"W
- Module size: 7.2"L x 1.4"W x 0.4" Thick

Part No.	Description	1	10	25
215159CF	40 x 2 parallel LCD	$29.99	$26.99	$24.29

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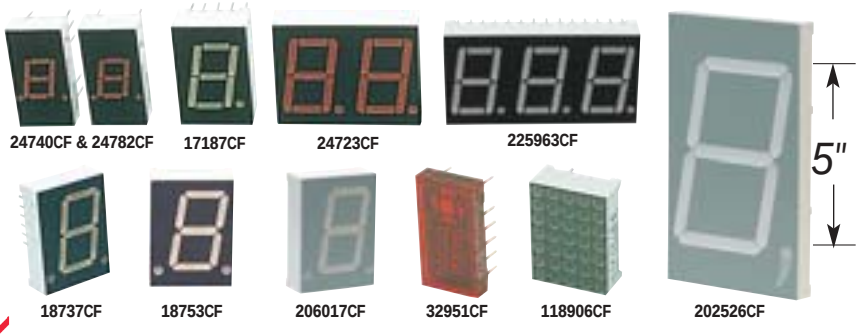
LED Displays

The general advantages of LED displays compared to incandescent types include:

- Lower power consumption
- Longer lifetime (averaged more than 300,000 hours)
- Compact size suitable for instrumentation and graphic representations

Soldering:

- Soldering bath: not more than 5 seconds @ 260°C
- Soldering iron: not more than 3 seconds @ 300°C under 30W



7-Segment Displays

Part No.	Mfr. Cross Reference No.	Character Height	Illuminated Color	Buss Polarity*	Pins/ Leads	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Decimal Point #	Pricing 1	10	100	1000
24731CF	LSD3021-11	.300"	Red	CA	11	1.9 @ 20	0.3 @ 20	697	RHDP	$.87	$.70	$.50	$.47
24740CF	LSD3221-11	.300"	Red	CA	11	2.1 @ 20	2.5 @ 20	697	LHDP	~~$.89~~ .79	.72	.64	.58
151976CF	LTS312AY	.300"	Yellow	CA	11	2.8 @ 20	2.0 @ 10	585	LHDP	.89	.75	.65	.49
24782CF	LSD3211-11	.300"	Red	CC	10	2.1 @ 20	2.5 @ 20	697	RHDP	.89	.75	.65	.49
17187CF	LSD5051-11	.500"	Red	CC	10	2.1 @ 20	0.9 @ 20	697	RHDP	.89	.80	.72	.65
17208CF	LSD5061-11	.500"	Red	CA	10	2.1 @ 20	0.9 @ 20	697	RHDP	.89	.75	.65	.49
104213CF	LSD5124-10	.560"	Orange Red	CA	10	2.0 @ 20	2.4 @ 20	635	RHDP	.89	.80	.71	.55
199531CF	LSD5111-11	.560"	Red	CC	10	2.1 @ 20	0.8 @ 20	697	RHDP	.99	.89	.79	.72
24715CF	LDD5121-20	.560"	Red	2-digit CA	18	2.1 @ 20	0.8 @ 20	697	RHDP	1.25	1.05	.89	.75
24723CF	LDD5111-11	.560"	Red	2-digit CC	18	2.1 @ 20	0.8 @ 20	697	RHDP	1.25	1.05	.89	.75
200379CF	LB602VAGI	.560"	Red	2-digit CA	18	2.0 @ 10	16 @ 10	650	RHDP	1.25	.99	.90	.68
24694CF	LDD5124	.560"	Orange Red	2-digit CA	18	2.0 @ 20	2.4 @ 20	635	RHDP	1.39	1.14	1.06	.99
24707CF	LDD5114-20	.560"	Orange Red	2-digit CC	18	2.0 @ 20	2.4 @ 20	635	RHDP	1.35	1.15	.99	.89
200539CF	ELD556YWA	.560"	Yellow	2-digit CA	18	2.0 @ 20	1.9 @ 10	590	RHDP	1.25	1.15	.89	.65
225963CF	KW3-562A2B	.560"	Green	3-digit CA	28	2.2 @ 20	15 @ 20	568	RHDP	2.39	2.15	1.95	1.25
199582CF	LC56311	.560"	Yellow	CC	8	2.1 @ 20	5.2 @ 20	589	RHDP	.87	.80	.72	.66
196787CF	LB602VA	.560"	Orange Red	2-digit CA	18	2.0 @ 20	16.0 @ 20	650	RHDP	1.45	1.31	1.05	.79
18737CF	LSD816-11	.800"	Orange Red	CA	13	1.6 @ 20	0.9 @ 20	655	RHDP	1.45	1.20	.99	.74
18753CF	LSD8151-10	.800"	Red	CC	13	2.1 @ 20	1.0 @ 20	697	RHDP	~~$1.95~~ 1.49	1.35	1.19	.99
206017CF	SC08-11HWA	.800"	Red	CC	13	2.0 @ 20	.36 @ 10	700	RHDP	1.79	1.65	1.49	1.29
176559CF	C8021-1	.800"	Green	CC	13	2.0 @ 20	0.9 @ 20	568	RHDP	.49	.42	.37	.33
97172CF	LSD10061-10	1.0"	Red	CA	10	2.1 @ 20	2.0 @ 20	697	RHDP	1.39	1.25	1.12	.99
97199CF	LSD23265-10	2.24"	Red	CA	10	1.7 @ 20	21 @ 20	660	RHDP	5.75	5.19	4.69	4.19
97201CF	LSD23255-10	2.24"	Red	CC	10	1.7 @ 20	21 @ 20	660	RHDP	4.49	3.95	3.25	2.95
202518CF	LSD30165-20	3.0"	Orange Red	CA	10	8 @ 20	4.5 @ 10	635	RHDP	7.39	6.99	6.65	6.29
202542CF	LSD30155-20	3.0"	Orange Red	CC	10	8 @ 20	4.5 @ 10	635	RHDP	~~$6.95~~ 5.49	4.95	4.45	4.05
105591CF	LSD40054-20†	4.0"	Orange Red	CC	10	2.0 @ 20	18 @ 20	635	RHDP	9.49	8.29	7.49	6.49
202500CF	LSD40064-20	4.0"	Orange Red	CA	10	2.0 @ 20	18 @ 10	635	RHDP	10.49	9.49	8.59	7.79
202526CF	LSD50065-20	5.0"	Red	CA	10	17 @ 20	45 @ 10	660	RHDP	34.99	27.89	25.29	22.79
202534CF	LSD50055-20	5.0"	Red	CC	10	17 @ 20	45 @ 10	660	RHDP	~~$19.95~~ 17.95	14.35	12.95	11.65

† 5 diodes per segment

Dot Matrix Displays

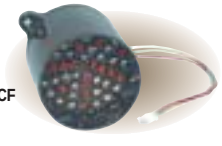
Part No.	Mfr. Cross Reference No.	Jameco Socket Number	Character Height	Illuminated Color	Buss Polarity*	Pins/ Leads	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Decimal Point #	Pricing 1	10	100	1000
173833CF	HP5082-7300	—	.290"	Red	4x7 Numeric	8	5.0 @ 170	.03 @ 20	660	RHDP	$7.95	$7.19	$5.75	$4.25
32951CF	TIL311	37161	.300"	Red	4x7 Hex character	11	5.0 @ 5	0.1 @ 5	660	—	16.95	14.35	12.92	11.62
118906CF	LTP747R	37161	.680"	Orange Red	5 x 7 AC/CR	12	1.7 @ 20	0.2 @ 20	655	—	1.95	1.79	1.45	1.05
218843CF	CSM57041T-11	—	.700"	Red	5 x 7 CC/AR	12	1.8 @ 20	8 @ 20	660	—	1.95	1.55	1.17	.82
206560CF	LTP2157AG	—	2.0"	Green	5 x 7 CC/AR	14	3.7 @ 80	4.8 @ 80	565	—	4.49	3.55	3.27	3.09
183265CF	LMD5821ASR-20	—	2.3"	Red	5 x 8 CC/AR	14	1.7 @ 20	12 @ 20	660	—	4.95	4.49	3.95	3.49

* CA-Common Anode/CC-Common Cathode/AC-Anode Column/CR-Cathode Row/AR-Anode Row # LHDP-Left Hand Decimal Point / RHDP-Right Hand Decimal Point

Cluster-Type T1¾ LED Lamps

- Cluster-type red/green T1¾ LEDs
- 660nm for red/570nm for green
- Lens: water clear • Common anode • 3 lead wires

150914CF: 50 Cluster (30 green/20 red)
150922CF: 14 Cluster (8 green/6 red)



Part No.	Product No.	Vf @ If	mcd @ mA	Lead Wire	Mounting Hole Dia.	Dimensions (Dia." x L")	Pricing 1	10	100
150922CF	LCR2614B-79	10V @ 20mA	1950 @ 20	7"	M3	1.02 x 1.51	$4.95	$4.49	$3.95
150914CF	LCR5250A-79	20.5V @ 40mA	12,000 @ 40	16"	M4	2.07 x 1.98	21.95	19.95	17.95



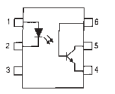
We'll match the advertised price of any like product.

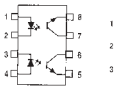
Jameco's Low-Price Guarantee

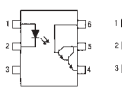
It's that simple!

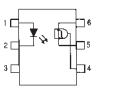
Optoisolators, Optical Switches and CDS Photocells

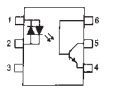
Optoisolators


Fig. 1


Fig. 2


Fig. 3


Fig. 4


Fig. 5

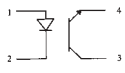

114091CF

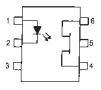


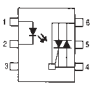


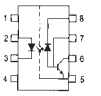


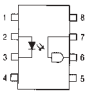


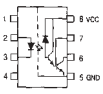

Fig. 6

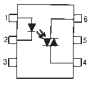

Fig. 7

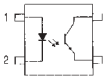

Fig. 8

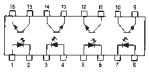

Fig. 9

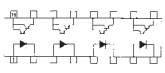

Fig. 10

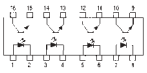

Fig. 11


Fig. 12


Fig. 13


Fig. 14


Fig. 15


Fig. 16

Part No.	Product No.	Mfg.	Fig.	Pins	Description	Forward (V)	Input Current (mA)	Blocking Voltage (V)	Isolation (kV)	Pricing 1	10	100	500
40985CF	4N25	✦	1	6	Diode, NPN photo transistor	1.5	10	30	2.5	**$.28**	**$.25**	**$.22**	**$.19**
41005CF	4N26	✦	1	6	Diode, NPN photo transistor	1.5	10	30	1.5	**.29**	**.25**	**.22**	**.19**
144240CF	4N27	✦	1	6	Diode, NPN photo transistor	1.2	10	30	5.3	**.25**	**.19**	**.17**	**.15**
41013CF	4N28	✦	1	6	Diode, NPN photo transistor	1.5	10	30	0.5	**.27**	**.22**	**.16**	**.11**
41056CF	4N35	✦	1	6	Diode, NPN photo transistor	1.5	10	30	3.5	**.39**	**.35**	**.25**	**.16**
41021CF	4N32	✦	3	6	Diode, NPN photo-darlington	1.5	10	30	2.5	**.29**	**.25**	**.22**	**.19**
41030CF	4N33	✦	3	6	Diode, NPN photo-darlington	1.5	10	30	1.5	**.29**	**.25**	**.22**	**.19**
42471CF	6N136	✦	9	8	High speed NPN transistor	1.7	16	4.5	2.5	**.65**	**.59**	**.50**	**.36**
113911CF	6N137	✦	10	8	Very high speed logic coupler	1.75	5	STTI/TTL	2.5	~~$1.09~~ **.86**	**.72**	**.58**	**.39**
113929CF	6N139	✦	11	8	High speed, high gain darlington	1.7	1.6	4.5	2.5	~~$.99~~ **.79**	**.69**	**.59**	**.43**
18825CF	H11AA1	✦	5	6	Dual infrared diode, NPN photo transistor	1.5	20	30	2.5	**.39**	**.35**	**.29**	**.28**
113996CF	H11F1	✦	7	6	Isolated FET	1.75	16	30	2.5	**1.99**	**1.75**	**1.55**	**1.39**
113988CF	H11L1	✦	4	6	Schmitt trigger output photocoupler	1.5	1.6	STTL/TTL	5.0	**.89**	**.79**	**.69**	**.59**
114091CF	H21A1	✦	6	4	Single channel, slotted interrupter	1.7	60	30	—	**.83**	**.75**	**.61**	**.59**
138069CF	ISP817-3	Isocom	13	4	Low power transistor output	1.4	20	35	5.0	**.99**	**.89**	**.79**	**.65**
114083CF	ISQ203	Isocom	14	16	Quad channel NPN photo transistor	1.5	20	30	7.5	**2.95**	**2.65**	**2.39**	**2.15**
24918CF	MCT6	✦	2	8	Dual channel NPN photo transistor	1.3	100	30	7.5	~~$.59~~ **.49**	**.45**	**.41**	**.40**
26294CF	MOC3031	✦	8	6	Zero crossing triac driver	1.5	30	250	7.5	**.99**	**.89**	**.79**	**.65**
113953CF	MOC3032	✦	8	6	Zero crossing triac driver	1.5	30	250	7.5	**.95**	**.84**	**.76**	**.68**
113961CF	MOC3042	✦	8	6	Zero crossing triac driver	1.5	30	400	7.5	**.89**	**.81**	**.72**	**.65**
133874CF	MOC3063	✦	8	6	Zero crossing triac driver	1.5	30	600	7.5	**1.25**	**1.12**	**.99**	**.71**
26278CF	MOC3010	✦	12	6	Bilateral triac driver	1.5	50	250	7.5	**.49**	**.45**	**.39**	**.35**
95020CF	MOC3011	✦	12	6	Bilateral triac driver	1.5	10	250	7.5	**.55**	**.49**	**.45**	**.40**
95038CF	MOC3021	✦	12	6	Bilateral triac driver	1.5	10	400	7.5	**.69**	**.59**	**.49**	**.39**
160338CF	PS2501-4	✦	16	16	Photo Darlington & Transistor/Detector	1.2	20	—	—	**1.35**	**1.12**	**.95**	**.85**
160362CF	PS2502-4	✦	15	16	Photo Darlington & Transistor/Detector	1.2	10	—	—	~~$2.49~~ **1.99**	**1.78**	**1.55**	**1.39**

✦ Manufacturer varies

Module Optical Switch



- Input diode: forward voltage (V_F) – 1.60V max. (I_F=20mA); reverse current (I_R) – 10µA (V_R = 5V) • Type N package
- Collector dark current (I_{CEO}) – 100nA (V_{CE} = 10V)
- C-E saturation voltage (V_{CE}) (sat): 0.4V max. (Ic = 0.5mA; I_F=20mA)

Part No.	Product No.	Dimensions	1	10	50
196058CF	ITR-8105	0.10"W x 0.22"D x 0.29"H	**$1.95**	**$1.75**	**$1.59**

Slotted Optical Switch

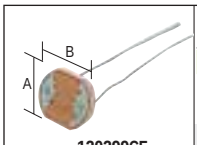


- Input diode: forward voltage (V_F) – 1.60V (I_F=10mA); reverse current (I_R) – 100µA (V_R = 3.0V) • Type N package
- Coupled: saturation voltage (V_{SAT}) – 0.40V (I_F = 10mA; Ic=100µA) gap unblocked

Part No.	Product No.	Dimensions	1	10	50
189481CF	OPB660N	0.13"W x 0.26"D x 0.35"H	~~$2.05~~ **$1.99**	**$1.79**	**$1.59**

CDS Photocells

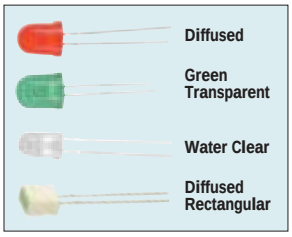
- Applications include: auto-focus lenses, exposure meters, contrast controls for TVs, dimmer or light switches, flame detectors, electronic toys, street lamp switches, optocouplers
- Generate variable signal based on detection of light levels
- Operating temperature: -30°C to +70°C
- Soldering: 230°C for 3 seconds
- Cadmium Sulfide (CDS)



120299CF


202438CF

Part No.	Mfr. Cross Ref. No.	Rating Vp	Rating mW	Resistance (Ω) Dark	Resistance (Ω) Light	Size (inches) A	Size (inches) B	Lead Spacing (inches)	Lead Length (inches)	Pricing 1	10	100	1000
136063CF	CDST18	20	40	100k	10k	0.14	0.17	0.10	1.50	**$.69**	**$.62**	**$.49**	**$.37**
136047CF	CDST05	50	250	100k	10k	0.25	0.29	0.18	1.50	**.69**	**.62**	**.55**	**.49**
136055CF	CDST08	50	200	100k	10k	0.40	0.44	0.30	1.50	**.89**	**.79**	**.69**	**.60**
202366CF	CDS0029001	150	90	300k	27k	0.14	0.17	0.10	1.02	**1.79**	**1.65**	**1.45**	**1.35**
202374CF	CDS0029006	150	90	5M	80k	0.14	0.17	0.10	1.02	**1.79**	**1.65**	**1.45**	**1.35**
202391CF	CDS0029203	150	90	20M	5k	0.14	0.17	0.10	1.02	**1.49**	**1.35**	**1.19**	**1.09**
202382CF	CDS0029008	150	90	20M	10k	0.14	0.17	0.10	1.02	~~$1.55~~ **1.49**	**1.29**	**1.15**	**.99**
202420CF	CDS0018003	150	100	500k	16k	0.17	0.20	0.13	1.02	~~$1.55~~ **1.49**	**1.29**	**1.15**	**.99**
202403CF	CDS0018001	150	100	200k	3k	0.17	0.20	0.13	1.02	**1.49**	**1.35**	**1.19**	**1.09**
202411CF	CDS0018006	150	100	5M	80k	0.17	0.20	0.13	1.02	**1.29**	**1.19**	**1.05**	**.94**
120310CF	CDS002	150	90	2M	27k	0.14	0.17	0.10	1.44	**1.45**	**1.20**	**1.09**	**.99**
202438CF	CDS0037004	200	150	500k	15k	0.25	0.29	0.20	1.44	~~$2.49~~ **1.49**	**1.29**	**1.15**	**.99**
120301CF	CDS0037001	200	150	300k	3.6k	0.25	0.29	0.20	1.44	**1.79**	**1.59**	**1.45**	**1.29**
202446CF	CDS0037005	200	150	20M	50k	0.25	0.29	0.20	1.44	**1.49**	**1.29**	**1.15**	**.99**
120299CF	CDS0045001	350	400	300k	8k	0.38	0.43	0.30	1.44	**1.79**	**1.59**	**1.45**	**1.29**
202454CF	CDS0045003	350	400	1M	12k	0.37	0.43	0.30	1.44	~~$4.95~~ **1.49**	**1.29**	**1.15**	**.99**





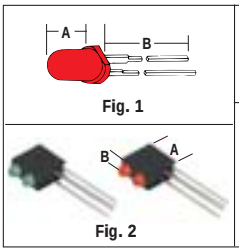


Fig. 1

Fig. 2

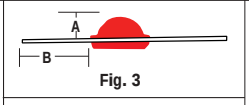


Fig. 3

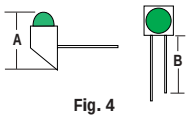


Fig. 4

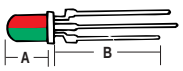


Fig. 5

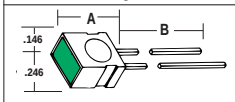


Fig. 6

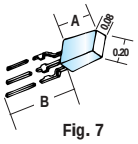


Fig. 7


Fig. 8

Call for OEM PRICING – we carry major manufacturers.

Standard-Output LEDs

\# Prepackaged: order in increments of 100 or 1000
✳ Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	Fig.	Emitting Color	Lens/Feature Description	LED Size	Diameter inch/mm	Dimensions A"	Dimensions B"	Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing 1	Pricing 10	Pricing 100	Pricing 1000
206480CF	LVY2041	1	Yellow	Yellow transparent	T1	.119/3	0.17	0.69	0.08	2.3 @ 20	450 @ 20	595	✳	$.14	$.12	$.10
136493CF	LT0333-41	1	Yellow	Water clear (BY209)	T1	.119/3	0.20	0.95	0.10	2.3 @ 20	38 @ 20	589	✳	.19	.11	.09
202489CF	MVL-301Y	1	Yellow	Yellow diffused	T1	.119/3	0.14	1.12	0.10	2.1 @ 20	9.0 @ 10	585	✳	.19	.15	.12
34657CF	LY2040	1	Yellow	Yellow diffused (XC209Y)	T1	.119/3	0.16	0.68	0.08	2.3 @ 20	15 @ 10	585	✳	.13	.11	.075
206498CF	LHR2041	1	Red	Red transparent	T1	.119/3	0.17	0.69	0.08	2.0 @ 20	350 @ 20	660	✳	.15	.12	.09
114673CF	LH2043	1	Red	Water clear (BR209)	T1	.119/3	0.14	0.98	0.07	2.3 @ 20	12 @ 10	697	✳	.19	.15	.12
94529CF	LH2040	1	Red	Red diffused (XC209RB)	T1	.119/3	0.18	1.04	0.07	2.3 @ 20	4.5 @ 10	697	✳	.19	.15	.12
175679CF	LVG2041	1	Green	Green transparent	T1	.119/3	0.17	0.69	0.08	2.2 @ 20	129 @ 20	565	✳	.15	.11	.08
114681CF	LVG2043	1	Green	Water clear (BG209)	T1	.119/3	0.14	0.98	0.07	2.2 @ 20	129 @ 20	565	✳	.09	.07	.055
34606CF	LSG2040	1	Green	Green diffused (XC209G)	T1	.119/3	0.13	1.05	0.08	2.2 @ 20	15 @ 10	560	✳	.15	.11	.08
211086CF	LTL-4231N-022	1	Green	Green diffused	T1	.119/3	0.13	1.10	0.10	2.1 @ 20	12.6 @ 10	565	#	#	.09	.07
202471CF	MVL-301HR	1	Orange Red	Red diffused	T1	.119/3	0.14	1.12	0.10	2.0 @ 20	9.0 @ 10	640	✳	.19	.15	.12
34622CF	LR2040	1	Orange Red	Red diffused (XC209R)	T1	.119/3	0.14	1.09	0.09	1.8 @ 20	1.5 @ 10	655	✳	.15	.13	.095
94553CF	LHG2062	1	Red/Green	White diffused bi-color/bi-state[1]	T1	.119/3	0.18	1.06	0.08	2.3 @ 20	3 & 15 @ 10	697/565	.27	.25	.21	.16
137411CF	LVB2040	1	Blue	Blue diffused	T1	.119/3	0.21	0.98	0.10	4.8 @ 20	10 @ 20	430	2.49	2.25	1.95	1.69
123941CF	521-9478	1	Green/Yellow	White diffused bi-color/bi-state[1]	T1	.119/3	0.18	0.86	0.08	2.1 @ 10	6.3 & 4.3 @ 10	565/585	✳	.29	.19	.15
203553CF	HLMP-4100	1	Orange Red	Water clear	T1 3/4	.197/5	0.33	1.07	0.08	1.8 @ 20	750 @ 20	642	.29	.25	.20	.15
210825CF	BVU-5MIQN1	1	Orange Red	Red diffused	T1 3/4	.197/5	0.30	1.07	0.08	2.1 @ 20	600 @ 20	615	.49	.45	.39	.35
135597CF	LTL307E	1	Orange Red	Red diffused	T1 3/4	.197/5	0.34	1.00	0.07	2.0 @ 20	19 @ 10	635	✳	.16	.10	.09
107393CF	LE3330	1	Orange Red	Orange diffused (XC556A)	T1 3/4	.197/5	0.30	1.02	0.08	2.3 @ 20	12 @ 10	635	✳	.11	.07	.06
34796CF	LR3330	1	Orange Red	Red diffused (XC556R)	T1 3/4	.197/5	0.30	0.62	0.08	1.8 @ 20	1.5 @ 10	655	✳	.15	.12	.08
206501CF	LVY3331	1	Yellow	Yellow transparent	T1 3/4	.197/5	0.24	1.07	0.07	2.2 @ 20	700 @ 20	595	✳	.19	.15	.12
175695CF	LVY3333	1	Yellow	Water clear	T1 3/4	.197/5	0.30	1.07	0.08	2.1 @ 20	60 @ 10	585	✳	.19	.15	.12
34825CF	LY3330	1	Yellow	Yellow diffused (XC556Y)	T1 3/4	.197/5	0.30	0.82	0.07	2.3 @ 20	12 @ 10	585	✳	.19	.15	.12
206519CF	LHR3331	1	Red	Red transparent	T1 3/4	.197/5	0.24	1.07	0.07	2.0 @ 20	660 @ 20	550	✳	.19	.15	.12
11797CF	HPQLMPD141	1	Red	Water clear (BR5704)	T1 3/4	.197/5	0.29	1.05	0.07	2.0 @ 20	350 @ 20	660	✳	.19	.13	.10
138860CF	LFH3363	1	Red	Water clear/flashing†	T1 3/4	.197/5	0.35	1.06	0.10	3-12V	9	697	.49	.45	.39	.29
34745CF	LH3333	1	Red	Water clear (XC554R)	T1 3/4	.197/5	0.30	1.00	0.08	2.3 @ 20	7.5 @ 10	697	✳	.15	.11	.065
94511CF	LH3330	1	Red	Red diffused (XC556RB)	T1 3/4	.197/5	0.31	0.81	0.08	2.3 @ 20	3 @ 10	697	✳	.17	.13	.10
34690CF	LFH3360	1	Red	Red diffused/flashing (XC5410)†	T1 3/4	.197/5	0.30	0.94	0.07	3-12V	2.8	697	.49	.45	.39	.35
134332CF	LT18B3-81UR	1	Blue	Water clear	T1 3/4	.197/5	0.30	0.93	0.10	3.8 @ 20	350 @ 20	428	$2.95 2.65	2.45	2.25	1.95
137613CF	LSB3333	1	Blue	Water clear	T1 3/4	.197/5	0.34	0.98	0.08	3.8 @ 20	160 @ 20	430	$2.75 2.27	2.13	2.08	1.62
138691CF	LVB3330	1	Blue	Blue diffused	T1 3/4	.197/5	0.34	0.98	0.08	4.8 @ 20	10 @ 20	430	$2.75 2.14	2.04	1.95	1.79
153154CF	LVG3333	1	Green	Water clear	T1 3/4	.197/5	0.36	0.90	0.10	2.3 @ 20	500 @ 20	565	✳	.14	.10	.08
11359CF	LG3333	1	Green	Water clear (BG5704)	T1 3/4	.197/5	0.30	1.04	0.07	2.3 @ 20	100 @ 20	565	✳	.22	.20	.16
175687CF	LT0524-81	1	Green	Green transparent	T1 3/4	.197/5	0.24	1.07	0.07	2.1 @ 20	44 @ 20	567	✳	.16	.12	.09
94561CF	LFG3360	1	Green	Green diff./flashing (XC5408)†	T1 3/4	.197/5	0.30	1.05	0.08	3-12V	17	565	.59	.53	.48	.43
34761CF	LG3330	1	Green	Green diffused (XC556G)	T1 3/4	.197/5	0.31	0.79	0.09	2.3 @ 20	12 @ 10	565	✳	.15	.14	.10
34711CF	LEG3362	1	Red/Green	White diffused bi-color/bi-state[1]	T1 3/4	.197/5	0.30	1.01	0.09	2.3 @ 20	7.5 & 8 @ 20	635/565	.33	.28	.22	.19
119634CF	LHR3930	1	Red	Red diffused Jumbo	T2 1/2	.315/8	0.44	0.84	0.07	2.0 @ 20	100 @ 20	660	$0.29 .23	.20	.15	.13
137621CF	LVG3930	1	Green	Green diffused Jumbo	T2 1/2	.315/8	0.43	1.04	0.07	2.3 @ 20	40 @ 20	565	.23	.20	.15	.13
138683CF	LHR3630	1	Red	Red diffused XJumbo (XC10R)	T3 1/4	.394/10	0.40	1.04	0.10	2.0 @ 20	100 @ 20	660	.29	.26	.22	.18
98984CF	LVG3630	1	Green	Green diffused XJumbo (XC10G)	T3 1/4	.394/10	0.40	1.07	0.08	2.3 @ 20	40 @ 20	565	.27	.26	.19	.13
98992CF	LY3630	1	Yellow	Yellow diff. XJumbo (XC10Y)	T3 1/4	.394/10	0.54	1.04	0.08	2.3 @ 20	15 @ 20	585	.29	.25	.19	.15
136274CF	LA44B/2G	2	Green	Green diffused (dual)	T1	.119/3	0.38	0.17	0.10	2.3 @ 20	15 @ 10	565	.49	.45	.39	.29
136282CF	LA44B/2I	2	Red	Red diffused (dual)	T1	.119/3	0.38	0.17	0.10	2.3 @ 20	12 @ 10	630	.49	.45	.39	.29
26745CF	MCDL-170EC	3	Red	Water clear	T 3/4	.083/2.1	0.06	0.25	0.11	2.1 @ 20	7 @ 10	635	.25	.22	.18	.13
134869CF	RRL5621	3	Orange Red	Red diffused (5V)†	T 3/4	.083/2.1	0.09	0.37	0.10	3.0-5.5V	1.2	650	✳	.19	.15	.12
104248CF	LA93B/H-1	4	Red	Red diffused (XC410R)	T1 3/4	.197/5	0.35	0.89	0.08	2.3 @ 20	6.5 @ 10	697	✳	.23	.19	.17
104256CF	LA93B/G-1	4	Green	Green diffused (XC410G)	T1 3/4	.197/5	0.35	0.89	0.08	2.3 @ 20	30 @ 10	565	$0.29 ✳	.23	.19	.17
104264CF	LA93B/Y-1	4	Yellow	Yellow diffused (XC410Y)	T1 3/4	.197/5	0.35	0.89	0.08	2.3 @ 20	25 @ 10	585	$0.29 .35	.29	.25	.19
34673CF	LHG3392	5	Red/Green	White diff. bi-color/tri-state	T1 3/4	.197/5	0.30	1.02	0.03	2.3 @ 20	3 & 12 @ 10	697/565	.24	.22	.20	.14
34850CF	LT7341R-81*	6	Orange Red	Red diffused rectangular	3.5 x 6	—	0.27	0.85	0.07	2.0 @ 20	5.2 @ 20	635	$0.39 .26	.22	.16	.13
94545CF	LG25030*	6	Green	Green diff. rect. (XC57124G)	3.5 x 6	—	0.26	1.06	0.08	2.3 @ 20	5.2 @ 20	565	✳	.14	.10	.09
104889CF	LEG5292*	7	Red/Green	White diff. bi-color rectangular	2 x 5	—	0.27	1.02	0.08	2.3 @ 20	6/6 @ 10	695/565	✳	.17	.13	.10
176532CF	MV50G	8	Green	Water clear	T 3/4	.069/1.7	0.06	0.40	0.08	2.1 @ 20	300 @ 20	568	✳	.10	.08	.06

[1] Reverse polarity to change color † Voltage shown is operating voltage range; no current limiting resistor required * For Mounting Hardware see page 98

High-Output LEDs

- Typical DC forward current 20mA

See page 98 for LED Mounting Hardware

Fig. 1

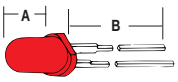




Fig. 2

Part No.	Mfr. Cross Reference No.	Fig.	Emitting Color	Lens/Feature Description	LED Size	Diameter inch/mm	Dimensions A"	Dimensions B"	Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing 1	Pricing 10	Pricing 100	Pricing 1000
217525CF	MCDPW-3004C	1	White	Water clear	T1	.119/3	0.18	1.00	0.10	3.8 @ 20	3000 @ 20	—	**$2.99**	**$2.85**	**$2.69**	**$2.55**
142893CF	CLP1509	1	White	Water clear	T1 3/4	.197/5	0.34	0.79	0.08	3.6 @ 20	3700 @ 20	—	$4.49 **3.95**	**3.59**	**2.95**	**2.75**
183231CF	T18W133196	1	White	Water clear	T1 3/4	.197/5	0.30	1.06	0.08	3.6 @ 20	3000 @ 20	—	**2.95**	**2.65**	**2.39**	**2.15**
183222CF	MCDL513SBC4	1	Blue	Water clear	T1 3/4	.197/5	0.29	1.02	0.08	5.0 @ 20	3000 @ 20	470	**3.25**	**2.95**	**2.65**	**2.39**
183214CF	MCDPG503PCI	1	Green	Water clear	T1 3/4	.197/5	0.30	1.04	0.08	3.5 @ 20	2200 @ 20	515	$3.25 **2.95**	**2.65**	**2.39**	**2.15**
131895CF	TLSH180P	1	Orange	Water clear	T1 3/4	.197/5	0.39	0.80	0.10	2.1 @ 20	7000 @ 20	623	**2.49**	**2.19**	**1.95**	**1.79**
153138CF	LT2KJ3-UR-S14	1	Orange	Water clear	T1 3/4	.197/5	0.36	0.90	0.10	2.1 @ 20	2500 @ 20	621	**.49**	**.44**	**.39**	**.35**
197683CF	BVT5E1QT4ER	1	Orange Red	Water clear	T1 3/4	.197/5	0.29	1.08	0.08	2.3 @ 20	4650 @ 20	634	$0.79 **.69**	**.59**	**.49**	**.39**
197616CF	BVU5E1QH4E	1	Red	Water clear	T1 3/4	.197/5	0.30	1.05	0.08	1.8 @ 20	2180 @ 20	630	**.39**	**.35**	**.29**	**.25**
215597CF	LT2K33-81-UC9T	1	Yellow	Water clear	T1 3/4	.197/5	0.31	0.89	0.10	2.2 @ 20	5000 @ 20	590	**.59**	**.55**	**.49**	**.45**
197675CF	BVT5E1TT4E	1	Yellow	Water clear	T1 3/4	.197/5	0.30	1.08	0.08	2.3 @ 20	2800 @ 20	592	**.45**	**.36**	**.29**	**.27**
197641CF	BVT529T13E	2	Yellow	Yellow transparent	Oval	.170/.220	0.29	1.04	0.08	2.3 @ 20	7800 @ 20	590	**.69**	**.62**	**.55**	**.49**
197659CF	BVT529QT3F	2	Orange Red	Red transparent	Oval	.170/.220	0.30	1.05	0.08	2.3 @ 20	3600 @ 20	629	**.49**	**.44**	**.39**	**.35**

LEDTECH LEDs

- Typical DC forward current 20mA

Ledtech is a QS9000 and ISO-9000 Certified Company

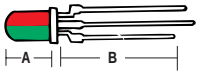


Fig. 1

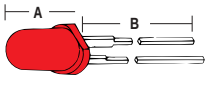
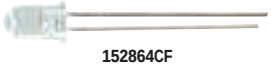


Fig. 2



152864CF

151415CF



✳ Prepackaged: order in increments of 10, 100 or 1000

Part Number	Product Number	Fig.	Emitting Color	Lens/Feature Description	LED Size	Diameter (in./mm)	Dimensions A"	Dimensions B"	Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing 1	Pricing 10	Pricing 100	Pricing 1000
156970CF	LT1873-UR-C07	2	Red Ultra Bright	Water clear (wide angle)	T1 3/4	.197/5	0.34	0.89	0.10	1.9 @ 20	2112 @ 20	660	**$.35**	**$.31**	**$.25**	**$.19**
152805CF	LT1873-81-UR	2	Red Ultra Bright	Water clear	T1 3/4	.197/5	0.34	0.89	0.10	1.9 @ 20	600 @ 20	660	$0.35 **.29**	**.25**	**.19**	**.15**
152864CF	LT1873-81	2	Red Super Bright	Water clear	T1 3/4	.197/5	0.34	0.89	0.10	1.7 @ 20	1000 @ 20	660	**.29**	**.24**	**.19**	**.15**
156953CF	LT0373-41	2	Red Super Bright	Water clear	T1	.119/3	0.21	1.07	0.08	1.7 @ 20	600 @ 20	660	**.24**	**.22**	**.17**	**.14**
156945CF	LT0362-25-D61	1	Red/Green	White diff. bi-color tri-state	T1	.119/3	0.16	0.87	0.08	2.1 @ 20	14/3 @ 20	700/567	**.29**	**.25**	**.19**	**.15**
152750CF	LT0344R-41	2	Orange Red	Red clear	T1	.119/3	0.20	0.89	0.10	2.1 @ 20	23.5 @ 10	635	✳	**.19**	**.16**	**.12**
152784CF	LT0341R-41	2	Orange Red	Red diffused	T1	.119/3	0.20	0.89	0.10	2.1 @ 20	6.9 @ 10	635	✳	**.17**	**.15**	**.12**
152856CF	LT1841R-81	2	Orange Red	Red diffused	T1 3/4	.197/5	0.34	0.89	0.10	2.1 @ 20	23 @ 20	635	✳	**.17**	**.15**	**.13**
152768CF	LT0324-41	2	Green	Green clear	T1	.119/3	0.20	0.89	0.10	2.1 @ 20	20 @ 20	567	✳	**.12**	**.09**	**.07**
156929CF	LT0321-41-HE	2	Green	Green diffused	T1	.118/3	0.16	0.88	0.10	2.1 @ 20	13.3 @ 20	567	✳	**.18**	**.11**	**.10**
156961CF	LT1823-81-HE	2	Green	Water clear	T1 3/4	.197/5	0.34	0.87	0.10	2.2 @ 20	500 @ 20	567	✳	**.17**	**.15**	**.12**
152821CF	LT1821-81-HE	2	Green	Green diffused	T1 3/4	.197/5	0.34	0.89	0.10	2.2 @ 20	100 @ 20	567	✳	**.16**	**.12**	**.09**
152792CF	LT1833-81M1	2	Ylw Super Bright	Water clear	T1 3/4	.197/5	0.34	0.89	0.10	2.1 @ 20	420 @ 20	595	$0.35 **.26**	**.24**	**.19**	**.14**
152830CF	LT1831-81UR	2	Ylw Ultra Bright	Yellow diffused	T1 3/4	.197/5	0.34	0.89	0.10	2.1 @ 20	400 @ 20	595	$0.49 **.26**	**.24**	**.20**	**.14**
156937CF	LT0331-41	2	Yellow	Yellow diffused	T1	.118/3	0.16	0.88	0.10	2.1 @ 20	11 @ 20	585	✳	**.14**	**.10**	**.07**
				White Diffused Backlight												
151415CF	LTIF24-A2-S1	–	Green	Backlight, white diffused	2.05"L x 0.78"H x 0.09"T				8-pin	6.0 @ 20	6.0 @ 20	567	**$2.95**	**$2.65**	**$2.39**	**$1.95**

Infrared and Visible Light Emitters and Detectors

- Use for remote control and/or for fiber optics
- **P/N 133946CF:**
  Can be used with cameras, see page 208 (peak emission wavelength: 940nm @ If 20mA)

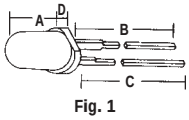


Fig. 1

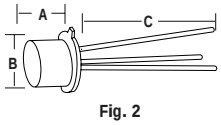


Fig. 2



106526CF



172321CF

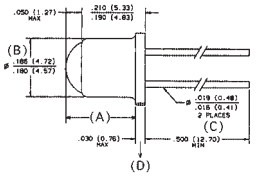


Fig. 3

Part No.	Mfr. Cross Ref. No.	Fig.	Description	Size	Diameter inch/mm	Dimensions (inches) A	B	C	D	Vf @ If	nm	mWatts	Pricing 1	Pricing 10	Pricing 100	Pricing 1000
112150CF	TLN100	1	Infrared emitter diode (GaAs)	T1	0.125/3	0.18	0.95	0.98	0.03	1.2V @ 20mA	940	1.2	$0.39 **$.22**	**$.18**	**$.14**	**$.12**
133946CF	SLI-0308CP	1	Infrared emitter diode (GaAs)	T1	0.12/3	0.22	0.98	1.00	0.03	1.7V @ 50mA	940	200	$0.83 **.62**	**.53**	**.40**	**.31**
112176CF	IRD300	1	Infrared phototransistor	T1	0.12/3	0.18	0.95	0.98	0.03	—	940	—	**.39**	**.29**	**.19**	**.15**
106526CF	TLN110	1	Infrared emitter diode (GaAs)	T1¾	0.200/5	0.34	0.78	0.84	0.04	1.2V @ 20mA	940	9	$0.45 **.39**	**.29**	**.19**	**.15**
112168CF	IRD500	1	Infrared phototransistor	T1¾	0.200/5	0.31	1.05	1.10	0.04	—	940	—	**.36**	**.30**	**.24**	**.20**
120221CF	BPW77	2	Visible light phototransistor	TO-18	—	0.24	0.19	0.52	—	—	800	—	**1.95**	**1.75**	**1.49**	**1.39**
172321CF	OP133	3	Infrared emitter diode (GaAs)	TO-46	—	0.22	0.18	1.05	0.20	1.8V @ 100mA	935	5	**2.15**	**1.95**	**1.45**	**1.42**

LED Mounting Hardware

- P/N 95521CF: for use with P/N 94545CF and 34850CF, pg 96


95513CF


23077CF


95521CF

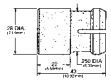
Prepackaged: order in increments of 10, 100 or 1000

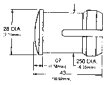
Part No.	Mfr. Cross Ref. No.	Description	Color	Mounting Hole Dia.	Panel Thickness	Pricing 10	100	1000
95513CF	LMH100	T1 snap-in	Black	.185"	Up to .070"	$0.13 $.08	$.07	$.04
23077CF	LMH200	T1¾ ring & clip	Black	.257"	Up to .125"	.15	.135	.12
95521CF	LMH250	Rect. snap-in	Black	.306" x .202"	Up to .092"	.20	.18	.16

T1¾ Cliplite® LED Lens Mount

- Requires no assembly tools, just snap in
- Material: lens – polycarbonate; spacer – nylon
- Increases viewing angle to 180°
- Devices mount on .375" centers
- Helps guard against electrostatic discharge up to 16kV while affording the LED physical protection


29612CF


Fig. 1 (5mm)


Fig. 2 (5mm)

Part No.	Product No.	Description	Color	Fig.	Mounting Hole Dia.	Panel Thickness	Pricing 1	10	100	1000
14277CF	CLF280CTP	T1¾	Clear	1	.25"	.063" –.125"	$.22	$.19	$.16	$.14
29612CF	CLF280RTP	T1¾	Red	1	.25"	.063" –.125"	.23	.19	.16	.14
124927CF	CLB300CTP	T1¾	Clear	2	.25"	.031" – .25"	.23	.20	.16	.14

T1 & T1¾ Cliplite® Lens and Conxrite® Cable Assembly

Cliplite® Lens: • Material: (lens) polycarbonate: (ring) polyproplyene (UL Listed)
- Mounts through front panel in O.171" hole diameter, panel thickness: 1/32" to 3/32"

Conxrite® Cable Assembly: • Terminals: phosphor bronze, tin-plated
- Connector socket and ring/header connector: thermoplastic (UL Listed)
- Wire: 22AWG, 7 strand copper, insulated

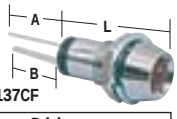


Part No.	Product No.	Size	Description	1	10	100	1000
143183CF	SMC170CTP	T1	Clear Cliplite® lens	$.22	$.20	$.15	$.13
143132CF	CMC321CTP	T1¾	Clear Cliplite® lens	.25	.22	.19	.16
143087CF	BE2108	T1	8.5" cable assembly	$1.49 1.25	1.13	.93	.86
143036CF	CE2108	T1¾	8.5" cable assembly	$1.49 1.29	1.25	1.19	1.15
143052CF	CE2118	T1¾	18" cable assembly	$1.75 1.55	1.39	1.20	1.09

LED Panel-Mount Indicators

- Easy panel installation
- Panel/status/ instrument indicators
- Vf @ If: 2V @ 20mA
- Color: red
- Chrome housing


141111CF



141129CF/141137CF

Part No.	Mfr. Cross Ref. No.	LED Size	Dimensions (in.) L	A	B	Mounting Hole	Pricing 1	10	100	1000
141111CF	L922SRD	T1	.56	.34	.25	.23"	$.79	$.60	$.52	$.45
141129CF	L913RD	T1	.56	.39	.32	.24"	1.09	.81	.69	.61
141137CF	L917RD	T1 ¾	.70	.55	.47	.31"	.89	.79	.71	.55

JKL Single-Lead Tipless-Type Fluorescent Lamps

World's smallest fluorescent and ultra violet lamps. Assure you of bright, uniform output, long-life, cool operation and unmatched reliability.


142244CF


146165CF

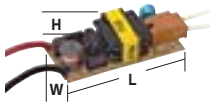
142244CF: Compatible with P/N 146190CF (below)
- Lamp current: 5.0mArms
- Starting voltage: 390Vrms
- Lamp voltage: 170Vrms • Intensity: 3500cd/m²

146165CF: Compatible with P/N 142252CF (below)
- Lamp current: 5.0mArms
- Starting voltage: 1200Vrms
- Lamp voltage: 520Vrms
- Intensity: 28,000cd/m²

Part No.	Size (Ins.)	1	10	25
142244CF	2.0"L x 0.25"Dia.	$9.95	$8.95	$7.79
146165CF	10.0"L x 0.12"Dia.	9.95	8.95	7.49

JKL Fluorescent Lamp Power Supplies

These DC inverters are designed especially for cold cathode fluorescent lamps.



146190CF

146190CF:
- Output voltage: 600Vrms @ 4mA, 30kHz
- Input voltage: 5VDC @ 200mA
- PCB size: 1.7"L x 0.8"W x 0.04"H


142252CF

142252CF:
- Output voltage: 850Vrms @ 5.5mA, 20kHz
- Input voltage: 12VDC @ 260mA
- PCB size: 1.8"L x 0.8"W x 0.04"H

Part No.	Product No.	1	10	25
146190CF	65010	$14.95	$13.45	$11.99
142252CF	12200	15.95	14.49	12.95

Incandescent and Neon Panel Mount Indicators

Incandescent Panel Mount Lamps

- 215781CF/215790CF/215773CF: wire length - 3.9" (100mm)
- 215749CF/215757CF/215765CF: wire length - 4.9" (125mm)
- 215714CF/215722CF/215731CF: solder terminals - 0.196" (5mm)


215790CF
Fig. 1


215757CF
Fig. 2


215714CF
Fig. 3

Part No.	Product No.	Fig.	Volts	Color	Mounting Hole	Pricing 1	10	100
215773CF	R9-46B-W100-12V-R	1	12	Red	1/2" (13mm)	$1.79	$1.59	$1.35
215781CF	R9-46B-W100-12V-Y	1	12	Yellow	1/2" (13mm)	1.79	1.59	1.35
215790CF	R9-46B-W100-12V-G	1	12	Green	1/2" (13mm)	1.79	1.59	1.35
215749CF	R9-55B-W130-12V-R	2	12	Red	9/32" (7mm)	1.79	1.59	1.35
215757CF	R9-55B-W130-12V-Y	2	12	Yellow	9/32" (7mm)	1.79	1.59	1.35
215765CF	R9-55B-W130-12V-G	2	12	Green	9/32" (7mm)	1.79	1.59	1.35
215714CF	R9-71B-05-12V-R	3	12	Red	5/8" (16mm)	1.79	1.59	1.35
215722CF	R9-71B-05-12V-Y	3	12	Yellow	5/8" (16mm)	1.79	1.59	1.35
215731CF	R9-71B-05-12V-G	3	12	Green	5/8" (16mm)	1.79	1.59	1.35

Neon Panel Mount Lamps

- Output voltage: 120V
- Mounting hole diameter: 5/8" (16mm)
- Solder terminals: 0.196" (5mm)

215802CF: Red
215811CF: Yellow
215829CF: Green

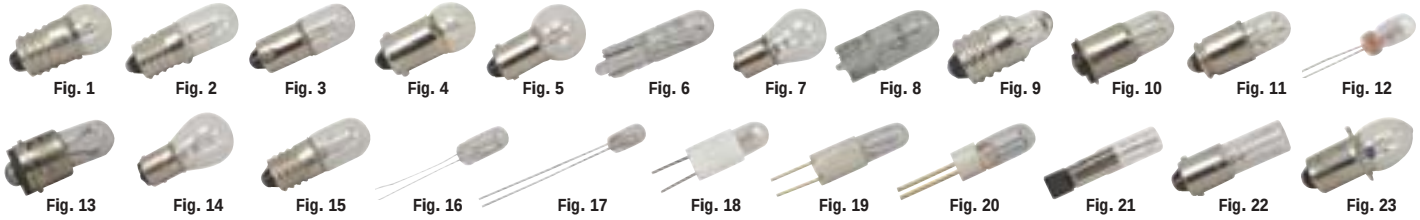

215802CF

Part No.	Product No.	1	10	100
215802CF	R9-71N-05-120V-R .	$1.79	$1.59	$1.35
215811CF	R9-71N-05-120V-Y ...	1.79	1.59	1.35
215829CF	R9-71N-05-120V-G ...	1.79	1.59	1.35

30-Day Money-Back Guarantee

If you're not completely satisfied, we'll take it back!

Details on page 226.



Incandescent Lamps

Part No.	Mfr. Cross Ref. No.	Fig.	Description	Volts (VDC)	Current (A)	MSCP	Pricing 1	10	100
209381CF	13	1	G3 1/2 miniature screw	3.7	.30	.98	$.79	$.69	$.59
209390CF	14	1	G3 1/2 miniature screw	2.47	.30	.50	.55	.50	.45
209402CF	40	2	T3 1/4 miniature screw	6.3	.15	.50	.29	.19	.15
209411CF	44	3	T3 1/4 miniature bayonet	6.3	.25	.90	.29	.20	.15
209429CF	46	2	T3 1/4 miniature screw	6.3	.25	.90	.37	.32	.27
209437CF	47	3	T3 1/4 miniature bayonet	6.3	.15	.50	.29	.20	.15
209445CF	50	1	G3 1/2 miniature bayonet	7.5	.22	1.0	.64	.57	.51
210403CF	51	4	G3 1/2 miniature bayonet	7.5	.22	1.0	.35	.29	.25
209453CF	53	4	G3 1/2 miniature bayonet	14.4	.12	1.0	.50	.41	.35
210411CF	55	5	G4 1/2 miniature bayonet	7.0	.41	2.0	.29	.25	.19
209461CF	73	6	T1 3/4 wedge	14.0	.08	.30	.29	.21	.17
209470CF	85	6	T1 3/4 wedge	28.0	.04	.30	.29	.21	.17
209488CF	86	6	T1 3/4 wedge	6.3	.20	.40	.29	.21	.17
209496CF	93	7	S-8 sngl contact bayonet	12.8	1.04	15.0	.75	.63	.57
209509CF	161	8	T3 1/4 wedge	14.0	.19	1.0	.29	.20	.15
209517CF	168	8	T3 1/4 wedge	14.0	.35	3.0	.29	.20	.16
209525CF	194	8	T3 1/4 wedge	14.0	.27	2.0	.29	.22	.17
209533CF	222	9	GTL-3 miniature screw	2.25	.25	—	.29	.26	.23
209541CF	259	8	T3 1/4 wedge	6.3	.25	.65	.29	.22	.17
209550CF	313	3	T3 1/4 miniature bayonet	28.0	.17	3.5	.29	.24	.18
209568CF	327	10	T1 3/4 midget flange	28.0	.04	.34	.35	.30	.25
209576CF	328	10	T1 3/4 midget flange	6.0	.20	.60	.55	.47	.35
209584CF	330	10	T1 3/4 midget flange	14.0	.08	.50	.39	.34	.29
209592CF	334	11	T1 3/4 midget groove	28.0	.04	.34	.49	.40	.33
209605CF	335	15	T1 3/4 midget screw	28.0	.04	.34	.59	.48	.36
209613CF	344	10	T1 3/4 midget flange	10.0	.014	.002	.99	.89	.79
209621CF	345	10	T1 3/4 midget flange	6.0	.04	.03	.79	.64	.46
209630CF	370	10	T1 3/4 midget flange	18.0	.04	.15	.99	.89	.79
209648CF	376	10	T1 3/4 midget flange	28.0	.06	.34	.69	.59	.49
209656CF	379	11	T1 3/4 midget groove	6.3	.20	.40	.99	.89	.74
209664CF	381	10	T1 3/4 midget flange	6.3	.20	.40	.59	.44	.34
209672CF	382	10	T1 3/4 midget flange	14.0	.08	.30	.49	.40	.34
209681CF	385	10	T1 3/4 midget flange	28.0	.04	.15	.49	.41	.34
209699CF	386	11	T1 3/4 midget groove	14.0	.08	.30	.39	.33	.27
209701CF	387	10	T1 3/4 midget flange	28.0	.04	.30	.39	.27	.26
209710CF	388	11	T1 3/4 midget groove	28.0	.04	.30	.39	.31	.28
209728CF	394	10	T1 3/4 midget flange	12.0	.04	.12	.49	.44	.38
209736CF	656	8	T3 1/4 wedge	28.0	.06	.62	.29	.19	.15
209752CF	657	8	T3 1/4 wedge	28.0	.08	.62	.29	.21	.16
202100CF	683	12	T1 wire terminal	5.0	.06	.05	.59	.42	.31
209761CF	685	13	T1 sub midget flange	5.0	.06	.05	1.29	1.19	.99
209779CF	715	12	T1 wire terminal	5.0	.115	.15	.99	.89	.79
209787CF	755	3	T3 1/4 miniature bayonet	6.3	.15	.33	.59	.47	.35
209795CF	756	3	T3 1/4 miniature bayonet	14.0	.08	.31	.69	.59	.49
209808CF	757	3	T3 1/4 miniature bayonet	28.0	.08	.62	.39	.35	.29
210438CF	1156	7	S-8 sngl contact bayonet	12.8	2.1	32	.49	.39	.35
210446CF	1157	14	S-8 double contact index	12.8/14	21/.59	32/3	.39	.34	.29
209816CF	1450	4	G3 1/2 miniature bayonet	24.0	.035	.23	.99	.89	.79
209824CF	1813	3	T3 1/4 miniature bayonet	14.4	.10	.86	.29	.24	.22
209832CF	1815	3	T3 1/4 miniature bayonet	14.0	.20	1.4	.49	.39	.29
209841CF	1816	3	T3 1/4 miniature bayonet	13.0	.33	3.0	.29	.24	.19
209859CF	1818	3	T3 1/4 miniature bayonet	24.0	.17	3.3	.99	.89	.79
209867CF	1819	3	T3 1/4 miniature bayonet	28.0	.04	.34	.29	.25	.19
209875CF	1820	3	T3 1/4 miniature bayonet	28.0	.10	1.6	.49	.34	.24
209883CF	1821	15	T3 1/4 screw	28.0	.17	3.4	.99	.89	.79
209891CF	1822	3	T3 1/4 miniature bayonet	36.0	.10	2.1	.49	.33	.29
209904CF	1829	3	T3 1/4 miniature bayonet	28.0	.07	1.0	.29	.24	.19

Incandescent Lamps (Continued)

Part No.	Mfr. Cross Ref. No.	Fig.	Description	Volts (VDC)	Current (A)	MSCP	Pricing 1	10	100
209912CF	1835	3	T3 1/4 miniature bayonet	55.0	.05	1.1	$.49	$.39	$.34
209921CF	1847	3	T3 1/4 miniature bayonet	6.3	.15	.38	.59	.49	.44
209939CF	1850	3	T3 1/4 miniature bayonet	5.0	.09	.25	.59	.44	.39
209947CF	1864	3	T3 1/4 miniature bayonet	28.0	.17	3.0	.69	.55	.49
209955CF	1866	3	T3 1/4 miniature bayonet	6.3	.25	.65	.39	.29	.25
209963CF	1891	3	T3 1/4 miniature bayonet	14.0	.24	2.0	.49	.34	.29
209971CF	1893	3	T3 1/4 miniature bayonet	14.0	.33	2.0	.59	.45	.39
141073CF	2182	16	T1 3/4 wire terminal	14.0	.08	.30	.59	.53	.48
141065CF	2200	16	T1 3/4 wire terminal	5.0	.06	.05	.59	.53	.48
141057CF	6833	17	T 3/4 wire terminal	5.0	.06	.05	1.29	1.12	.89
209998CF	7219	12	T1 wire terminal	12.0	.06	.15	.29	.26	.23
210008CF	7328	18	T1 3/4 bi-pin	6.0	.20	.60	.99	.89	.69
210016CF	7335	10	T1 3/4 midget flange	5.0	.115	.15	.79	.69	.59
210024CF	7341	10	T1 3/4 midget flange	28.0	.065	.65	.89	.73	.69
141006CF	7361	18	T1 3/4 bi-pin	5.0	.06	.05	1.29	1.15	.99
210032CF	7382	18	T1 3/4 bi-pin	14.0	.08	.30	.49	.39	.35
210041CF	7387	18	T1 3/4 bi-pin	28.0	.04	.30	.59	.49	.39
210059CF	7632	19	T1 1/4 bi-pin	28.0	.04	.32	1.49	1.29	.99
210067CF	7683	20	T1 bi-pin	5.0	.06	.05	1.39	1.19	1.09
210075CF	7715	20	T1 bi-pin	5.0	.115	.15	1.39	1.29	1.19
210083CF	7839	20	T1 bi-pin	28.0	.024	.15	1.39	1.29	1.09
210227CF	6PSB	21	T2 tel. slide base type 5	6.0	.14	550	.79	.69	.59
210112CF	12ESB	21	T2 tel. slide base type 5	12.0	.04	650	.79	.64	.55
210121CF	12PSB	21	T2 tel. slide base type 5	12.0	.17	2000	.89	.75	.59
210139CF	24ESB	21	T2 tel. slide base type 5	24.0	.04	850	.79	.64	.55
210147CF	24MB	22	T2 miniature bayonet	24.0	.073	3000	1.19	.99	.89
210155CF	24PSB	21	T2 tel. slide base type 5	24.0	.073	3000	.69	.59	.49
210163CF	28ESB	21	T2 tel. slide base type 5	28.0	.04	1500	.79	.64	.55
210171CF	28MB	22	T2 miniature bayonet	28.0	.04	1600	.99	.89	.79
210180CF	28PSB	21	T2 tel. slide base type 5	28.0	.04	1600	.79	.59	.49
210198CF	48PSB	21	T2 tel. slide base type 5	48.0	.053	1800	.99	.79	.59
210201CF	60MB	22	T2 miniature bayonet	60.0	.05	2200	.99	.89	.79
210219CF	60PSB	21	T2 tel. slide base type 5	60.0	.05	2200	.69	.59	.49
210091CF	120MB	22	T2 miniature bayonet	120	.025	1200	.99	.69	.65
210104CF	120PSB	21	T2 tel. slide base type 5	120	.025	1200	.89	.74	.68
210340CF	PR2	23	B3 1/2 sngl cont. mini flange	2.38	.50	.80	.59	.39	.34
210358CF	PR3	23	B3 1/2 sngl cont. mini flange	3.57	.50	1.5	.59	.49	.44
210366CF	PR4	23	B3 1/2 sngl cont. mini flange	2.33	.27	.40	.55	.45	.39
210374CF	PR6	23	B3 1/2 sngl cont. mini flange	2.47	.30	.45	.59	.44	.34

Neon Lamps



Part No.	Mfr. Cross Ref. No.	Fig.	Description	Voltage (VAC)	Current (mA)	Pricing 1	10	100
27351CF	A1A (NE-2)	1	Wire terminal	65-120	0.5	$.49	$.39	$.29
210243CF	A1B	1	Wire terminal	65-120	0.3	.39	.29	.25
210251CF	A1C	1	Wire terminal	65-120	1.2	.39	.29	.25
210260CF	A9A (NE-2E)	1	Wire terminal	65-120	0.7	.29	.25	.19
210278CF	B1A (NE-51)	2	T3 1/4 miniature bayonet	65-120	0.3	.79	.69	.59
210286CF	B2A (NE-51H)	2	T3 1/4 miniature bayonet	65-120	1.2	.69	.49	.39
210294CF	B7A (NE-45)	3	T4 1/2 candelabra screw	65-120	2.0	4.99	4.49	3.49
210307CF	B9A (NE-48)	4	T4 1/2 D.C. bayonet	65-120	2.0	3.99	3.49	2.99
210315CF	C2A (NE-2H)	1	Wire terminal	65-120	1.9	.39	.34	.29

Miniature Toggle Switches

- Mounting hole diameter: 1/4"

Includes: Mounting hardware



Fig. 1

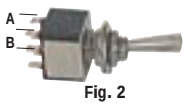


Fig. 2

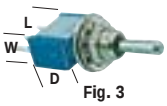


Fig. 3

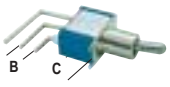


Fig. 4


Fig. 5


Fig. 6

Part No.	Mfr. Cross Ref. No.	Fig.	Pins	Type ( ) Momentary	Dimensions L" x W" x D"	Lead Spacing A"	Lead Spacing B"	Lead Spacing C"	Contact Rating (A @ VAC)	Lead Type	Lever Type	Pricing 1	Pricing 10	Pricing 100	Pricing 250	Pricing 1000
76523CF	JMT113	1	2	SPST on-off	.52 x .32 x .38	—	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	$1.15	$1.03	$.93	$.75	$.65
21936CF	JMT123	3	3	SPDT on-on	.52 x .32 x .38	—	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Round	1.15	1.03	.93	.75	.65
21910CF	JMT121	3	3	SPDT on-off-on	.52 x .32 x .38	—	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Round	1.35	1.25	1.09	.95	.85
22832CF	LFH123	3	3	SPDT on-on	.52 x .28 x .36	—	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Flat	1.15	1.05	.95	.85	.75
75854CF	SWM132	3	3	SPDT on-on	.52 x .32 x .38	—	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	1.19	1.09	.99	.79	.55
75889CF	SWM129	3	3	SPDT (on)-off-(on)	.52 x .32 x .38	—	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	1.69	1.55	1.32	.91	.79
26331CF	MPC123	3	3	SPDT on-on	.52 x .32 x .37	—	.185	—	6 @ 125 & 3 @ 250	PC	Round	1.39	1.25	1.12	.95	.78
26315CF	MPC121	3	3	SPDT on-off-on	.52 x .32 x .37	—	.185	—	5 @ 125 & 2 @ 250	PC	Round	1.29	1.19	.99	.79	.59
71597CF	SWM148	4	3	SPDT on-on	.52 x .32 x .38	—	.185	.20	5 @ 125 & 2 @ 250	PC right angle	Round	1.19	1.09	.91	.73	.55
75871CF	SWM145	5	3	SPDT on-on	.52 x .32 x .38	—	.185	.20	6 @ 125 & 3 @ 250	PC right angle	Round	1.49	1.35	1.09	.86	.79
22841CF	LFH221	2	6	DPDT on-off-on	.52 x .52 x .38	.20	.185	—	3 @ 125 & 1 @ 250	Solder lugs	Flat	1.45	1.35	1.19	1.09	.95
21979CF	JMT223	2	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Round	1.49	1.29	1.15	.99	.59
22859CF	LFH223	2	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Flat	1.29	1.19	1.05	.95	.85
105814CF	SWA208	2	6	DPDT on-(on)	.52 x .52 x .38	.20	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Round	1.75	1.57	1.35	1.09	.80
75900CF	SWM133	2	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	1.49	1.35	1.25	.99	.85
21952CF	JMT221	2	6	DPDT on-off-on	.52 x .52 x .38	.20	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	1.29	1.16	1.04	.89	.75
75951CF	SWM130	2	6	DPDT (on)-off-(on)	.52 x .52 x .38	.20	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	1.49	1.35	1.25	.99	.89
26366CF	MPC223	2	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	5 @ 125 & 2 @ 250	PC	Round	1.49	1.35	1.15	.85	.59
26358CF	MPC221	2	6	DPDT on-off-on	.52 x .52 x .38	.20	.185	—	5 @ 125 & 2 @ 250	PC	Round	1.19	1.09	.91	.73	.55
202964CF	WI24	6	6	DPDT on-off-(on)	.50 x .50 x .46	.15	.15	.20	6 @ 125 & 3 @ 250	PC right angle	Round	$1.29 .99	.89	.79	.69	.59

Subminiature Toggle Switches

- Mounting hole diameter: 7/32"
- Pre-tinned leads
- Metal construction

Includes: Mounting hardware

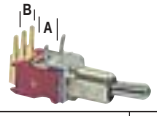


Fig. 1

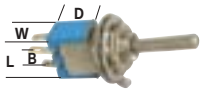


Fig. 2

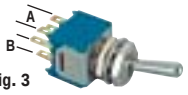


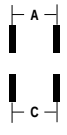
Fig. 3

Part No.	Mfr. Cross Ref. No.	Fig.	Pins	Type	Dimensions L" x W" x D"	Lead Spacing A"	Lead Spacing B"	Contact Rating	Lead Type	Lever Type	Pricing 1	Pricing 10	Pricing 100	Pricing 250	Pricing 1000
106067CF	SWP124	1	3	SPDT on-on	.25 x .33 x .40	.20	.10	30mA @ 5VDC	PC right angle	Round	$1.99	$1.83	$1.59	$1.44	$1.32
72160CF	SW1501	2	2	SPST on-off	.33 x .21 x .33	.10	—	1.5A @ 250VAC	Solder lugs	Round	1.29	1.24	1.14	.98	.79
75969CF	SWM136	2	3	SPDT on-on	.33 x .21 x .33	.10	—	3A @ 125VAC	Solder lugs	Round	1.55	1.44	1.21	.86	.63
72557CF	SW1502	2	3	SPDT on-off-on	.33 x .21 x .33	.10	—	1.5A @ 250VAC	Solder lugs	Round	1.35	1.25	1.05	.85	.60
138907CF	SW1503	3	6	DPDT on-off-on	.36 x .37 x .33	.17	.10	3A @ 120VAC	Solder lugs	Round	1.29	1.05	.85	.65	.55
75977CF	SWM137	3	6	DPDT on-on	.33 x .37 x .33	.17	.10	1.5A @ 250VAC	Solder lugs	Round	1.29	1.05	.85	.65	.55

Full Size Toggle Switches

- Panel mount
- Mounting hole diameter: 1/2"
- Full-size round lever
- Medium duty
- Keyed plate indicates switch position

Includes: Mounting hardware and on/off plate



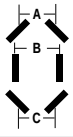




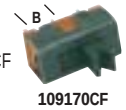
Fig. 1


Fig. 2

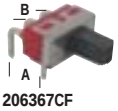
Part No.	Mfr. Cross Ref. No.	Fig.	Pins	Type	Dimensions L" x W" x D"	Lead Spacing A"	Lead Spacing B"	Lead Spacing C"	Contact Rating (A @ VAC)	Lead Type	Lever Type	Pricing 1	Pricing 10	Pricing 100	Pricing 250	Pricing 1000
76241CF	SWM128	1	2	SPST on-off	1.00 x .56 x .52	.23	—	—	4 @ 125 & 2 @ 250	Solder lugs	Round	$1.49	$1.29	$1.19	$.99	$.89
158060CF	JKN32	1	4	DPST on-off	1.00 x .56 x .52	.23	—	.23	4 @ 125 & 2 @ 250	Solder lugs	Round	1.15	1.05	.95	.85	.75
76259CF	SWM126	1	6	DPDT on-on	1.12 x .77 x .60	.30	.60	.40	5 @ 125 & 3 @ 250	Solder lugs	Round	1.75	1.59	1.29	.99	.85
158078CF	JKN3CC	1	6	DPDT on-on	1.19 x .76 x .73	.44	.59	.44	10 @ 125 & 6 @ 250	Screw lugs	Round	1.75	1.59	1.29	.99	.85
76232CF	SWM125	2	2	SPST on-off	1.00 x .53 x .51	—	—	—	6 @ 125 & 3 @ 250	6" lead wire	Round	1.75	1.59	1.45	1.29	1.15

Slide Switches

- Two mounting flanges
- Top actuation except P/N 204142CF
- Nylon actuator
- Phenolic insulated



109170CF



206367CF


202770CF


202981CF


203001CF


204142CF



161816CF


202972CF



202930CF


202948CF

Part No.	Pins	Type	Description	Housing Material #	Dimensions L"	Dimensions W"	Dimensions D"	Lead Spacing A"	Lead Spacing B"	Contact Rating	Lead Length	Actuator Height	Pricing 1	Pricing 10	Pricing 100	Pricing 250
109170CF	3	SPDT on-on	PC mount	Plastic	.22	.45	.23	—	.12	0.5A @ 50VDC	.17"	.15"	$.31	$.26	$.23	$.19
206367CF	3	SPDT on-off	PC mount right angle	Metal	.26	.52	.27	.37	.20	0.5A @ 125VAC	.27"	.31"	$0.55 .34	.30	.26	.22
202770CF	6	SPDT on-on	PC mount	Plastic	.71	.36	.38	.19	.20	0.1A @ 30VDC	.17"	.32"	.29	.26	.21	.16
202981CF	4	SP3T on-on-on	PC mount right angle	Metal	.61	.24	.18	—	.10	0.3A @ 125VAC	.26"	.15"	.29	.25	.20	.15
203001CF	3	SPDT on-off-on	PC mount right angle	Metal	.36	.20	.39	—	.11	0.1A @ 28VDC	.18"	.10"	.29	.25	.20	.15
204142CF	3	SPDT on-on*	PC mount	Plastic	.77	.40	.37	—	.19	2.0A @ 28VDC	.19"	.17"	.39	.37	.29	.22
161816CF	6	DPDT on-on†	PC mount	Plastic	.38	.14	.13	.13	.11	0.1A @ 20VDC	.11"	.08"	.49	.45	.34	.24
202972CF	6	DPDT on-on	PC mount	Plastic	.77	.43	.29	.24	.18	1.0A @ 24VDC	.21"	.51"	$0.55 .29	.26	.23	.19
202930CF	6	DPDT on-on	PC mount	Plastic	.76	.44	.29	.22	.18	4A @ 28VDC	.23"	.40"	$0.59 .18	.16	.14	.13
202948CF	3	SPDT on-on	PC mount right angle	Metal	.50	.27	.26	.38	.19	6A @ 28VDC	.13"	.19"	$0.55 .29	.26	.23	.19

*Side actuated † Plastic – flanges # Plastic: 6/6 nylon; metal: steel zinc plated

Pushbutton Switches

• Contact rating: 3A @ 125VAC (except P/N 106112CF: 3A @ 110VAC) • 2-pin • Lead type: solder terminal

Mountain Switch

Miniature Soft Touch Switches

Part No.	Product No.	Fig.	Type ( ) Momentary	Dimensions	Lead Spacing	Thread Diameter	Button Color	Pricing 1	10	100	1000
164494CF	DS450R	1	SPST off-on	1.2"L x .59"Dia.	.175"	.387"	Red	$1.79	$1.75	$1.70	$1.66
164486CF	DS463R	1	SPST off-(on)	1.2"L x .59"Dia.	.175"	.387"	Red	~~$2.49~~ 1.64	1.58	1.47	1.45
164523CF	DS466R	2	SPST off-(on)	1.2"L x .60"Sq.	.160"	.383"	Red	1.65	1.59	1.50	1.49
196921CF	196921I	2	SPST off-on	1.6"L x 1.6"Sq.	.189"	.450"	Red	1.79	1.59	1.29	.97
164558CF	DS471R	3	SPST off-(on)	1.2"L x .75"Sq.	.160"	.387"	Red	1.59	1.49	1.45	1.39


Figure 1


Figure 2


Figure 3


Figure 4

Standard Touch Switches

Part No.	Product No.	Fig.	Type ( ) Momentary	Dimensions	Lead Spacing	Thread Diameter	Button Color	Pricing 1	10	100	1000
164566CF	MS402R	4	SPST off-(on)	.73"L x .22"Dia.	.078"	.190"	Red	~~$1.49~~ $.99	$.96	$.94	$.93
164582CF	DS016B	5	SPST off-(on)	.88"L x .46"Dia.	.220"	.354"	Black	1.49	1.39	1.25	1.15
164638CF	MS3120R	6	SPST off-(on)	1.1"L x .31"Dia.	.175"	.268"	Red	.99	.89	.80	.72
164671CF	NS801MOB	7	SPST off-(on)	1.1"L x .59"Dia.	.213"	.468"	Black	~~$2.49~~ 1.99	1.67	1.51	1.45
106112CF	DS412R*	8	SPST off-(on)	.63"L x .66"Dia.	.275"	.750"	Red	1.19	.99	.89	.85


Figure 5


Figure 6


Figure 7


Figure 8

* Solder lugs

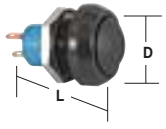
Pushbutton Switches

APEM

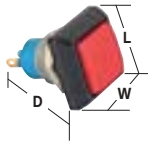
IP Series Pushbutton Switches

- Panel mount
- Insulation resistance: 1GΩ min. @ 500VDC
- Dielectric strength: 1500Vrms min.
- Initial contact resistance: 50mΩ max.
- Mounting hole: 1/2"Dia.
- Mechanical life: 1,000,000 cycles min.

171758CF



171766CF



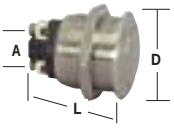
Part No.	Product No.	Pins	Type ( ) Momentary	Dimensions L	W	D	Lead Spacing	Contact Rating	Terminal Type	Pricing 1	10	100	250
171758CF	IPR3SAD2	2	SPST off-(on)	0.82"	—	0.46"	0.19"	0.2A @ 250VAC	Solder	$10.39	$9.35	$8.45	$7.49
171766CF	IPC3SAD6	2	SPST off-(on)	0.82"	0.69"	0.46"	0.19"	0.2A @ 250VAC	Solder	10.39	9.35	8.45	7.49

AV Series Pushbutton Switches

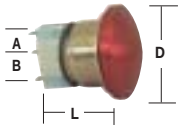
APEM

- Panel mount
- Mounting hole: 3/4"Dia. for P/N 171774CF; 0.85"Dia. for P/N 191062CF
- Insulation resistance: 1000MΩ min
- **171774CF:** Initial contact resistance: 10mΩ max. • Dielectric strength: 1000Vrms min.
- **191062CF:** w/ mushroom head actuator • Initial contact resistance: 100mΩ max. • Dielectric strength: 2000Vrms min.

171774CF



191062CF



Part No.	Product No.	Pins	Type ( ) Momentary	Dimensions L	D	Lead Spacing A	B	Contact Rating	Terminal Type	Pricing 1	10	100	250
171774CF	AV191003C900	2	SPST off-(on)	1.20"	0.87"	0.37"	—	2A @ 48VDC	Screw	$11.95	$10.84	$9.75	$8.79
191062CF	AV22PNA62	3	SPDT off-(on)	1.41"	1.18"	0.24"	0.35"	5A @ 250VAC	Solder	29.95	26.95	24.25	21.85

Pushbutton Switches

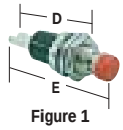


Figure 1

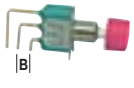


Figure 2

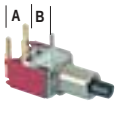


Figure 3


Figure 4

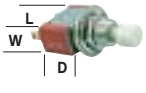


Figure 5



Figure 6

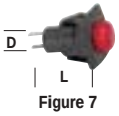


Figure 7

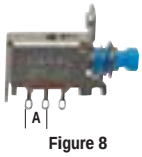


Figure 8

Part Number	Mfr. Cross Ref. No.	Fig.	Pins	Mounting Hole Dia.	Type ( ) Momentary	Dimensions (L" x W" x D")	Lead Spacing A"	B"	Contact Rating	Terminal Type	Button Color	Pricing 1	10	100	250	1000
26622CF	MS102	1	2	1/4"	SPST off-(on)	.65 (D) x 1.10 (E)	—	.14	3A @ 125VAC	Solder lugs	Red	$.55	$.50	$.45	$.35	$.29
26649CF	MS103	1	2	1/4"	SPST on-(off)	.65 (D) x 1.10 (E)	—	.17	3A @ 125VAC	Solder lugs	Black	.55	.50	.45	.35	.29
154878CF	PS11-123	2	3	1/4"	SPDT on-(on)	.50 x .27 x .37	—	.14	5A @ 125VAC	Solder, right angle	Red	.85	.75	.69	.59	.45
71642CF	SWB210	3	2	7/32"	SPST off-(on)	.36 x .20 x .33	.20	.20	1A @ 120VAC	PC right angle	Black	2.19	1.99	1.78	1.60	1.39
200774CF	TPI2SH8AQE	3	3	7/32"	SPDT off-(on)	.32 x .20 x .33	.20	.10	1A @ 120VAC	PC right angle	Black	4.79	3.85	2.86	2.49	2.09
202999CF	BB16	4	3	1/4"	SPDT on-on	.39 x .35 x .35	.18	.10	0.1A @ 28VAC	Solder, right angle	White	1.69	1.56	1.43	1.25	.89
121304CF	CK8121	5	3	1/4"	SPDT on-(on)	.52 x .27 x .38	—	.185	5A @ 125VAC	Solder lugs	White	3.59	3.25	2.95	2.65	2.39
28062CF	PB126	5	3	1/4"	SPDT on-(on)	.52 x .28 x .38	—	.185	5A @ 120VAC	Solder lugs	Red	3.69	3.35	2.85	2.29	1.99
22200CF	J1881	6	2*	3/8"	SPST on-off, Alt†	.65 x .52 x .40	.25	—	2A @ 14VDC	5" Pigtail	White	1.19	1.09	.94	.83	.72
22218CF	J1882	6	2*	3/8"	SPST off-(on)	.65 x .52 x .40	.25	—	2A @ 14VDC	5" Pigtail	Red	1.09	.98	.83	.67	.50
174414CF	R13-510A	7	2	1/2"	SPST off-(on)	.67 (L) x .31 (D)	—	.167	3A @ 125VAC	Solder lugs	Red	.79	.78	.77	.74	.69
206324CF	SPPJ31319A	8	3	1/4"	SPDT on-off	.58 x .21 x .33	.11	—	2A @ 30VDC	Solder lugs	Blue	.59	.50	.40	.30	.30

† Alt = alternate action * Lead wires

Miniature Basic Lever Switches

- 3 terminals: common; normally open; normally closed
- Size: 1.10"L x 0.40"W x 0.63"H


187805CF/213479CF


191388CF

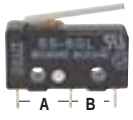

159581CF/187792CF
203545CF


159572CF

Part No.	Product No.	Manufacturer	Actuator Type	Contact Form	Contact Rating	Resistance (initial)	Service Life (Mech./Elec.)	Terminal Type	Pricing 1	25	50
159572CF	VS10N051C	Highly Electric	Hinged roller (0.60"L)	SPDT-NC	10A@125VAC, 10A@250VAC	15milliΩ (max.)	10M/100k	.183" quick connect	$2.89	$2.54	$2.28
159581CF	VS10N021C2	Highly Electric	Hinge lever (1.05"L)	SPDT-NC	10A@125VAC, 10A@250VAC	15milliΩ (max.)	10M/100k	.183" quick connect	2.45	2.25	1.99
191388CF	V3-715	Honeywell	Pin plunger	SPDT-NC	0.5A@125VAC, 10A@250VAC	—	10M/1M	.220" solder	1.55	1.25	.93
203545CF	V7-3E11D8-022	Honeywell	Hinge lever (1.07"L)	SPDT-NC	0.5A@125VAC, 10A@250VAC	—	10M/100k	.183" quick connect	2.79	2.59	2.29
187792CF	V-10G2-1C24K	Omron	Hinge lever (1.08"L)	SPDT-NC	0.1A@125VAC, 10A@250VAC	30milliΩ (max.)	50M/300k	.183" quick connect	2.45	2.25	1.99
187805CF	V-10G3-1C24K	Omron	Long hinge lever (2.01"L)	SPDT-NC	0.1A@125VAC, 10A@250VAC	30milliΩ (max.)	50M/300k	.183" quick connect	2.75	2.48	2.29
213479CF	DMC Series	Defond	Long hinge lever (3.56"L)	SPDT-NC	15.1A@125VAC, 15.1A@250VAC	—	—	.250" quick connect	1.75	1.69	1.59

SS Subminiature Basic Switches

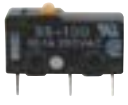
- Economical, subminiature basic switch offers long service life
- Free from overtravel restrictions, permits easy setting
- Lead spacing: A = 0.35"; B= 0.29"
- Dimensions: 0.78"L x 0.25"W x 0.40"H



187709CF


187733CF


159599CF


187645CF

Part No.	Product No.	Manufacturer	Actuator Type	Contact Form	Contact Rating	Contact Force	Service Life (Mech./Elec.)	Terminal Type	Pricing 1	25	50
187709CF	SS-5GL	Omron	Hinge lever (0.6"L)	SPDT-NC	5A @ 125VAC, 3A @ 250VAC	50g	30M/200k	Solder	$1.59	$1.45	$1.29
187733CF	SS-5GL2	Omron	Hinged roller (0.6"L)	SPDT-NC	5A @ 125VAC, 3A @ 250VAC	50g	30M/200k	Solder	~~$1.95~~ 1.25	1.09	.99
159599CF	SS0505A	Highly Electric	Hinge roller (0.7"L)	SPDT-NC	5A @ 125VAC, 3A @ 250VAC	45g	30M/200k	Solder	3.25	2.92	2.59
187645CF	SS-10D	Omron	Pin plunger	SPDT-NC	10.1A @ 125VAC, 10.1A @ 250VAC	150g	30M/200k	PCB, straight vertical	~~$2.69~~ 1.99	1.79	1.65

D2F Series Subminiature Snap-Action Switch

Ideal for a wide variety of applications from household appliances and office equipment to audio and communications equipment.

- Dimensions: 0.50"L x 0.23"W x 0.26"H
- Lead spacing: 0.2"



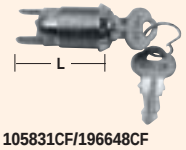
Part No.	Product No.	Manufacturer	Actuator Type	Contact Form	Contact Rating	Contact Resistance (initial)	Service Life (Mech./Elec.)	Terminal Type	Pricing 1	25	50
188867CF	D2F-L	Omron	Hinge lever (0.50"L)	SPDT-NC	2A @ 30VDC, 3A @ 125VAC	30milliΩ (max.)	1M/30k	PCB	$.89	$.83	$.79

SPST Round Keylock Switches

- Used in computer & other security systems
- Key removable from 2 positions • Two keys
- Mounting hole = 0.75" except P/N 106649CF = 0.5"

196648CF: all keys are alike **Includes:** Mounting nut


106649CF



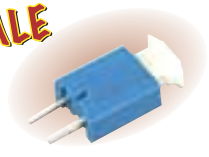
105831CF/196648CF

Part No.	Mfr. Cross Ref. No.	No. Flat, Dia.	Length	Terminal	Voltage/Current	Pricing 1	10	50	100
106649CF	KS4B	2, .21"	.55"	Barrel	125VAC/3A	$3.59	$3.29	$2.89	$2.49
105831CF	KS3B	2, .66"	1.48"	.25" quick connect	125VAC/6A	3.99	3.59	3.29	2.99
196648CF	3313E-M	2, .66"	1.48"	.25" quick connect	125VAC/6A	4.49	3.99	3.65	3.29

PCB Plunger Switch

Use in Place of Shorting Block

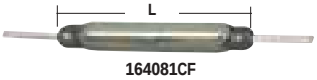
- SPST (on/off)
- Contact rating: 50mA @ 24VDC
- Non-removable plunger
- Size: 0.2"W x 0.1"D x 0.38"H
- Lead length: 0.1"L
- **10 piece minimum**



Part No.	Description	10	100	1000
172700CF	Plunger switch	~~$.25~~ $.10	$.09	$.08

Magnetic Reed Switches

- NO (normally open) • Contact form: SPST



164081CF

Part No.	Mfr. Cross Ref. No.	Contact Rating	Size (L" x Dia.")	1	10	100	1000
171871CF	MKA141011015	500mA @ 100VDC	0.53 x 0.1	$.79	$.64	$.46	$.41
164081CF	MRS1	1A @ 250VAC; 1A @ 50VDC	1.43 x 0.2	~~$0.99~~ .79	.63	.43	.39

See the yellow and green highlighted items.

Jameco Special Values!

Details on page 3.

Jameco carries a wide variety of Relays!











See pages 107-108 for our complete selection.

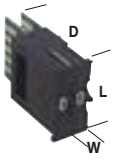


Pushbutton Binary Coded Decimal (BCD) Switch

26788CF (2 switches shown)

Thumbwheel Binary Coded Decimal (BCD) Switch

(2 switches shown) 26817CF

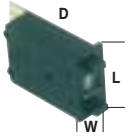


Pushbutton and Thumbwheel Switch Specifications:

- Contact resistance: 100mΩ max.
- 1/16" maximum panel thickness
- Gold plated BE-CU alloy contacts
- 0.15A @ 50VAC/28VDC
- Break before make
- Operating temperature: -40°C to +85°C
- Continuous load: 1 amp max.
- Front snap-tab mounting with end plates
- Switches snap together

Part No.	Mfr. Cross Ref. No.	Description	Size (L" x W" x D")	Character Height	Pricing 1	10	50	100
26788CF	MX72	10-position pushbutton	1.2 x 0.3 x 1.7	0.19"	$5.69	$5.15	$4.65	$4.15
26761CF	MXEP2	Mounting end plates for 26788	1.2 x 0.2 x 1.1	—	1.15	.99	.89	.79
26817CF	MX83	10-position thumbwheel	1.2 x 0.3 x 1.9	0.25"	4.49	3.95	3.55	3.19
26770CF	MXEP3	Mounting end plates for 26817	1.2 x 0.2 x 1.3	—	1.05	.88	.84	.77

Mini Pushbutton BCD Switch



- Operating temperature: -10˚C to +65˚C
- Switches snap together
- Positive logic ("0" all open output)
- 28VDC @ 10A
- Break before make

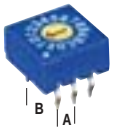
Part No.	Mfr. Cross Ref. No.	Description	Size (L" x W" x D")	Character Height	1	10	100
136557CF	MX061	10-position straight	.59 x .30 x 1.0	0.12"	$3.79	$3.41	$3.06

Excell Rotary DIP Switches

- Gold plated contacts to ensure reliable, low resistance connection
- Fully sealed construction
- Terminals: PC pin leads
- Life: 10,000 cycles min.
- Op force: 500g-cm max.
- Max. switching load rating: 25mA @ 24VDC
- Material: 94V-0 grade, UL approved fire retardant plastic
- Lead spacing: A = 0.1"; B = 0.3"



139635CF



139651CF

Part No.	Product No.	Position	Adjust	Code Type	W" x D" x H"	1	10	50	100
139635CF	ERD110RS(DRD10)	10	top	BCD	.39 x .39 x .20	$2.59	$2.33	$2.07	$1.86
139651CF	ERD116RS	16	top	Hex	.39 x .20 x .39	~~$2.95~~ 2.75	2.49	2.22	1.99

Rotary DIP Switches

- Fully sealed construction
- Rotor and switch body: plastic (UL94V-0)
- Contact and terminal material: copper alloy plated
- Make and break current rating: 30mA @ 30VDC for 10,000 cycles
- **215992CF**: 0.1" x 0.3" pin spacing (standard through hole)
- **216004CF**: 0.1" pin spacing (right angle through hole)



215992CF



216004CF

Part No.	Product No.	Position	Adjust	Code type	W" x D" x H"	1	10	100	1000
215992CF	HAB16	16	Top	HEX	.39 x .39 x .20	$2.45	$2.10	$1.85	$1.55
216004CF	HAB10R	10	Side	BCD	.44 x .30 x .40	2.45	2.10	1.85	1.55

Rocker and Lever Type Switches

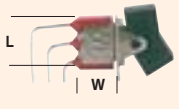
- Contact rating: 5A @ 120VAC; 2A @ 250VAC, except P/N 196154CF: 15A @125VAC; 10A @ 250VAC
- Operating temp.: -30˚ to 85˚C
- Electrical life: 50,000 make and break cycles at full load
- Contact resistance: 10mΩ typical
- Dielectric strength: 1000Vrms @ sea level
- Insulation resistance: 10MΩ min., except P/N 196154CF: 100MΩ min.



196154CF



202497CF



140530CF (Vertical)



163344CF

Part No.	Mfr. Cross Ref. No.	Pins	Type	Dimensions (ins.) L	W	D	Lead Spacing	Lead Type	Pricing 1	10	100	1000
196154CF	R30NSA	2	SPST on-off	1.07	.42	.77	N/A	Panel mt. quick discon.	$1.75	$1.59	$1.44	$1.35
202497CF	526VBU	2	SPST on-off	.89	.49	.64	N/A	Panel mt. quick discon.	.29	.26	.24	.22
140530CF	CK7101	3	SPDT on-on	.50	.50	.27	.150"	Right angle PC (vert.)	1.49	1.25	1.05	.89
163344CF	CKD103J5W	3	SPDT on-off-on	.67	.47	.59	N/A	Panel mt. solder eyelet	.99	.89	.79	.69

30-Day Money-Back Guarantee

If you're not satisfied, we'll take it back! Details on page 226.

DIP Switches



206359CF



139002CF



38842CF



139011CF

- Switch contacts: SPST
- Switches are numbered
- 50VDC @ 100mA
- Molded construction
- Standard switches have raised lever
- LP switches are flush to casing
- Pre-tinned leads



38800CF

Compatible Socket Chart, see page 140 for Sockets

Switch	Socket	Switch	Socket	Switch	Socket
109057CF	112192CF	38826CF	37161CF	101856CF	38113CF
206359CF	51570CF	38834CF	37161CF	38797CF	38607CF
38818CF	51570CF	38842CF	37372CF	38800CF	39378CF
139002CF	51570CF	139011CF	37372CF	202921CF	37372CF

Part No.	Mfr. Cross Ref. No.*	Pos.	Pricing 1	10	100	1000
109057CF	206-2	2	~~$1.05~~ $.75	$.68	$.61	$.55
206359CF	206-3	3	.79	.65	.55	.45
38818CF	206-4	4	.65	.55	.49	.45
139002CF	206-4LP	4	.79	.70	.55	.44
38826CF	206-6	6	.99	.89	.79	.72
38834CF	206-7	7	.95	.86	.68	.50
38842CF	206-8	8	.89	.80	.72	.64
139011CF	206-8LP	8	.85	.76	.61	.47
202921CF	DIPSWRA8	8	.59	.49	.45	.39
101856CF	206-9	9	.85	.79	.69	.49
38797CF	206-10	10	.95	.86	.68	.51
38800CF	206-12	12	1.05	.99	.93	.56

* Manufacturer may vary

Tri-State DIP Switch



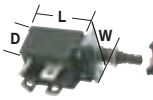
- Switch contacts: bussed, tri-state
- Labeled tri-state positions (+, 0, -)
- Contact rating: 24VDC @ 25mA
- 8 positions
- Two isolated busses
- Pre-tinned leads
- Compatible socket, use P/N 37372CF, pg 140

Part No.	Mfr. Cross Ref. No.	1	10	50	100
138991CF	ETA108E	$1.95	$1.75	$1.55	$1.35

Replacement Switches for AT-Style Computer Cases

PC Pushbutton Switches

- Alternate action double pole switch
- Contacts rated at 250VAC
- UL/CSA/VDE approved
- Size: 0.9"L x 0.7"W x 0.9"D



127044CF

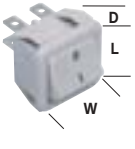


174238CF

Part No.	Description	Current	1	10	100
127044CF	PC push button	7.5A ..	$2.95	$2.25	$1.55
174238CF	PC push button	8A	2.59	2.25	1.65

PC Rocker Switch

- For mini-tower cases
- DPST
- Contacts rated at 250VAC
- UL/CSA approved
- Size: 0.9"L x 1.2"W x 1.4"D



Part No.	Description	Current	1	10	100
127028CF	PC rocker	10A	$2.95	$2.69	$2.39

Electromech

Tactile Switches

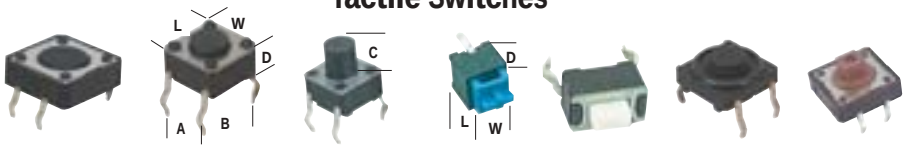


Fig. 1 Fig. 2 Fig. 3 Fig. 4 Fig. 5 Fig. 6 Fig. 7

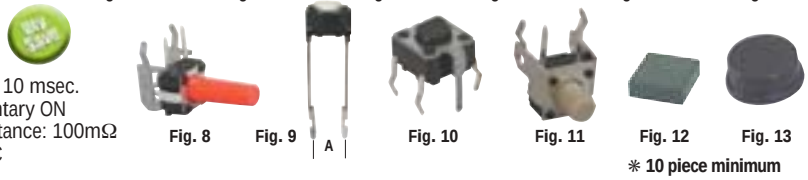


Fig. 8 Fig. 9 Fig. 10 Fig. 11 Fig. 12 Fig. 13

- Bounce time: 10 msec.
- SPST momentary ON
- Contact resistance: 100mΩ
- Lead type: PC

✳ 10 piece minimum

Part No.	Mfr. Cross Ref. No.*	Fig.	Pins	Dimensions (in.) L	W	D	C	Lead Spacing A"	B"	Contact Rating (mA @ VDC)	Button Color	Pricing 1	10	100	250
122972CF	DTS1212	1	4	.47	.47	.18	—	.20	.50	20 @ 15	Black	$.26	$.23	$.19	$.17
119010CF	KTIIBICM	2	8	.24	.24	.15	0.3	.17	.25	20 @ 15	Black	.29	.26	.21	.15
149948CF	KT11P4CM	3	4	.24	.24	.15	1.7	.17	.25	20 @ 15	Black	✳	.23	.21	.19
115086CF	KIE22	4	2	.24	.24	.22	—	—	.25	20 @ 15	Blue	✳	.19	.12	.10
175652CF	PBS35	6	4	.31	.31	.10	—	.20	.35	20 @ 15	Black	✳	.19	.16	.12
199726CF	EVQ11A04M	9	2	.24	.24	.14	0.3	.20	—	20 @ 15	White	✳	.19	.17	.13
200361CF	EVQPB04K†	10	5	.24	.24	.14	0.3	.17	.26	20 @ 15	Black	.29	.25	.22	.18
137189CF	PBS103	1	4	.47	.47	.17	—	.20	.50	50 @ 12	Black	.39	.35	.32	.19
153251CF	SDT620K	2	4	.24	.24	.15	0.6	.17	.25	50 @ 12	Black	.29	.25	.20	.18
155248CF	KRS-3550-BK	5	2	.24	.14	.15	—	—	.27	50 @ 12	Black	.22	.20	.16	.15
155256CF	KRS-3550-WH	5	2	.24	.14	.15	—	—	.27	50 @ 12	White	.35	.27	.22	.16
206341CF	KPT1107A	5	2	.24	.14	.15	—	—	.25	50 @ 12	White	.39	.29	.23	.17
155379CF	KRS-1273B	7	4	.47	.47	.14	.14	.17	.53	50 @ 12	Brown	.39	.35	.31	.26
206332CF	MJTP1236E	11	2	.27	.27	.28	—	—	.18	50 @ 12	White	.39	.29	.23	.17
202956CF	KSM06330	8	2	.24	.24	.15	.38	.11	.18	50 @ 24	Red	.29	.22	.15	.15

Tactile Switch Caps

Part No.	Mfr. Cross Ref. No.*	Fig.	Description	Size (in.)	Material	For Use With	10	100	250
155389CF	KRS-CAP-A	12	Square	.47"L x .47"W x .16"H	Plastic	P/N 155379	$.15	$.11	$.10
155408CF	KRS-CAP-B	13	Round	.5"Dia. x .25"H	Plastic	P/N 155379	.15	.13	.11

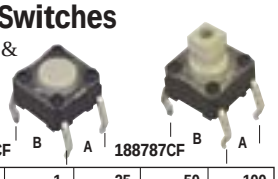
* Manufacturer may vary † **200361CF:** with ground pin

B3F Series Miniature Tactile Key Switches

OMRON

Miniature, low profile and easy mounting. Applications: audio, office & communications equipment, measuring instruments, TVs, VCRs, etc.

- Extended mechanical/electrical service life
- Flux-tight base structure allows automatic soldering of the key switches onto a PC board • Lead spacing: A = 0.18"; B = 0.26"



162886CF 188787CF

Part No.	Type	Operating Force	Dimensions (H x Pitch)	1	25	50	100
162886CF	B3F-1000	General purpose 100g	4.3 mm x 6.5 mm	$.45	$.40	$.36	$.33
188787CF	B3F-1050	High-force 260g	7.3 mm x 6.5 mm	.18	.16	.14	.13

Rotary Switches

- Panel mount • Make before break • Solder lugs • Layers: 1 • Contact rating: 30VDC @ 0.3A
- Insulation resistance: 10MΩ min. • Contact resistance: 30mΩ • Lug size: 0.07"
- Material: solid brass bushings, slotted aluminum shafts, plated frame, phenolic contact wafer (except for P/N 101565CF – plastic casing) • Mounting hole diameter: 3/8"
- Compatible with Jameco rotary knobs P/N 102787CF and 104176CF, pg 111

Includes: Washer and nut



101573CF

Part No.	Mfr. Cross Ref. No.*	Poles	Position	Shaft Size (L" x Dia.")	1	10	100
101531CF	RS0261	1	12	0.46 x 0.25	$1.29	$1.15	$1.04
101573CF	RS022	2	6	0.46 x 0.25	1.35	1.15	.90
101565CF	RS023	3	4	1.16 x 0.25	1.95	1.59	1.25
101557CF	RS024	4	3	0.46 x 0.25	1.09	.93	.69

* Manufacturer may vary

SP5T Rotary Switch

Grayhill

- Panel mount • Fixed stop • 1/8" screwdriver slotted shaft • 0.06" solder terminals
- 36˚ angle of throw • Single pole, 5-positions • Contact resistance: 20mΩ max.
- Insulation resistance: 1,000MΩ minimum between mutually insulated parts
- Material: stainless steel shaft and detent contact springs; brass terminals (gold plated over nickel plate); zinc, cadmium plated bushing



Part No.	Product No.	Description	1	10	100
184727CF	50AB36-01-1-5-F	SP5T panel mount rotary switch	$3.95	$3.39	$2.55

4P6T Rotary Switch

- 4 poles • 6 positions
- Panel mount • 2 layers
- Contact rating: 30VDC @ 0.3A
- Insulation resistance: 10MΩ min.
- Contact resistance: 30mΩ
- Mounting hole diameter: 0.37"
- Shaft size: 0.82"L x 0.25"Dia.
- Material: solid brass bushing; solid aluminum shaft, plated frame; phenolic contact wafer



Includes: Washer and nut

Part No.	Description	1	10	100
215482CF	Rotary switch	$1.59	$1.45	$1.29

16-Button Indoor/Outdoor Keypads

- 9-pin .100" headers
- Fully sealed snap-dome contact
- For indoor or outdoor use
- Contact rating: 24VDC @ 10mA resistive
- Life test: 3,000,000 cycles per key
- Compatible with MOS, TTL and DTL (10Ω max.)
- Recommended connector: P/N 103190CF header and P/N 100765CF pin, pg 138
- Size (housing): 4.7"W x 1.7"H x 0.4"T



196171CF



152063CF

✳ **Prepackaged: order in increments of 10 or 100**

Part No.	Description	1	10	100
196171CF	2x8 matrix keypad	$16.95	$15.29	$13.75
152063CF	4x4 matrix keypad	14.95	13.49	11.95
103190CF	Header housing (10-pin)	.42	.39	.36
100765CF	Header pin (10 per pack)	✳	.11	.09

12-Button Telephone Keypads

- White plastic
- 8-pin .100" header
- Contact rating: 12VDC @ 20mA
- Contact resistance: 200Ω max.
- Tactile type keypad
- Life test: 1,000,000 cycles per key
- Size: 2.8"L x 2.2"W x 0.6"H



153488CF

Part No.	Description	1	10	100
190561CF	Numeric keypad	$8.75	$7.45	$5.59
153488CF	Alpha numeric keypad	9.49	8.55	7.69

12-Button Chrome Outdoor Keypad

- 3 x 4 matrix
- Weather resistant, attack resistant keypad
- Fully sealed metal housing
- 8-pin 0.1" male headers (mating connectors P/N 103202CF & 100765CF, pg 138)
- Contact resistance: 100Ω max.
- Insulation resistance: 50MΩ (min.)
- Operating voltage: 24VDC @ 50mA (max.)
- Size: 3.9"W x 0.5"D x 4.7"H



Part No.	Description	1	10
226122CF	Industrial keypad	$49.99	$44.99

16-Button Numeric Keypad

- 4 x 4 matrix keypad
- 8-position solder pad
- Contact rating: 24VDC @ 20mA
- Contact resistance: 200Ω max.
- Life test: 1,000,000 life cycles per key
- Size: 3.0"L x 2.8"W x 0.6"H



Part No.	Description	1	10	100
169244CF	Numeric keypad	$7.95	$6.95	$6.25

Electromech

24VDC Liquid Level Sensors

Combine the control box and sensor to activate a water valve. When sensor is triggered by either a tank in full or empty condition, it will trigger an output status change.



176241CF

176241CF: Control Box
- Input voltage: 24VDC @ 10A
- Output voltage: 24VDC @ 10A
- Size: 2.1"L x 2.1"W x 1.6"H

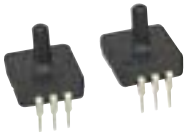
176250CF (Empty) / 176268CF (Full)
- Maximum contact rating: 10W
- Carry current: 1A
- Max. switching voltage: 100VDC
- Max. switching current: 0.5A
- Maximum contact resistance: 100mΩ
- Size: 2.6"L



176250CF

Part No.	Description	1	10	25
176241CF	Control box	$10.65	$9.49	$7.89
176250CF	Sensor empty type	9.95	8.95	7.95
176268CF	Sensor full type	11.45	10.30	9.27

Fujikura -1.1 to 2.5 PSI Pressure Sensor



- Measurable pressure range: -1.1 to 2.5 PSI
- Maximum load pressure: twice of rated pressure
- Operating voltage: 5V @ <10mA
- Maximum excitation voltage: 8V
- Pressure type: gauge pressure • Volt-level output
- Pressure media: non-corrosive gas
- On-chip amplification and temp. compensations
- Pre-calibration of offset voltage and span
- 1/8" diameter tubing is applicable
- Size: .55"L x .47"W x .20"H

Part No.	Product No.	1	10	100
196103CF	XFPN-025-KPGRNW1	$24.95	$21.25	$15.95

Fujikura 0 to 5 PSI Pressure Sensor



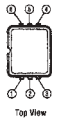
- Maximum load pressure: 10 PSI
- Output voltage: 0 – 4.5V
- Operating voltage: 5V @ 10mA
- Pressure type: gauge pressure
- Pressure media: non-corrosive gas
- Accuracy: ±0.125 PSI at 25˚C; ±0.250 PSI at -10 to 65˚C
- High level output, on-chip signal conditioned, temperature compensated, and calibrated
- 1/8" diameter tubing is applicable
- Size: 0.6"L x 0.5"W x 0.2"H

Part No.	Product No.	1	10	100
173657CF	XFPN-050-KPGT1	$15.95	$14.35	$12.95

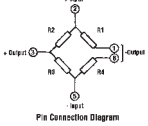
Servoflo 0 to 7 PSI Pressure Sensor



- Max. load pressure: 10.5 PSI
- Input excitation: 1.5mA
- Span output: 60-140mV
- Bridge resistance: 5kΩ ±1kΩ
- Accuracy: ±5% full scale
- High output, accuracy and stability • Low noise
- 1/8" diameter tubing is applicable
- Size: 0.5"L x 0.5"W x 0.2"H



Top View



Pin Connection Diagram

Part No.	Product No.	1	10	100
163731CF	FPM07PG	$11.95	$10.19	$7.65

12VDC Inductive Proximity Switch Sensors

Cylindrical and Square Styles

- Operating voltage range: 10-30VDC
- Nominal operating voltage: 12VDC
- Current consumption: 10mA max.
- Switching frequency: 1.5kHz
- Sensing target: inductive type – magnetic metal
- Sensing distance: ±10% (tin)
- Short circuit protected • LED status indicator
- Fast response • 6' long cable • Pre-tinned pigtail

155547CF (17mm)





167020CF (12mm)



155563CF (12mm)



155571CF (18mm)

Part No.	Product No.	Output Circuit	Effec. Dist. (Iron)	Standard Target (Iron) (mm)	Size (L" x W" x H")	Mounting Hole (in.)	Pricing 1	10	25
155547CF	S1805N1	NPN	0-4.0mm	17 x 17 x 1	1.4 x 1.4 x 0.7	0.112	$9.95	$8.95	$7.95
167020CF	TS1202N1	NPN	0-1.6mm	12 x 12 x 1	1.8"L x 0.46"Dia.	0.46	20.65	18.61	16.75
155563CF	TS1202P1	PNP	0-1.6mm	12 x 12 x 1	1.8"L x 0.46"Dia.	0.46	18.95	17.09	15.35
155571CF	TS1805N1	NPN	0-4.0mm	18 x 18 x 1	1.6"L x 0.70"Dia.	0.70	29.95	25.49	19.09

GORDOS-Type Digital I/O Modules

- Industry standard package and pinout
- High immunity to false operation
- 4000Vrms optical isolation
- Continuous duty
- Color coded by function
- Capacitance: 8pF typical (input/output)

184541CF



Part No.	Mfr. Cross Ref. No.	Description	Input Voltage	Output Voltage	Pricing 1	10	50
184541CF	ODC-5	DC output (red)	5VDC	3 to 60VDC @ 3A	$7.29	$6.85	$6.39
184524CF	OAC-5	AC output (black)	5VDC	120VAC @ 3A	6.49	6.19	5.75
184583CF	IDC-5	DC input (white)	3.3 to 32VDC	5VDC	~~9.95~~ 9.15	8.25	7.45

Ultrasonic Sensor Sets

- Use for motion or distance sensing
- Frequency: 40kHz ±1.0kHz
- Aluminum case

136653CF: Transmit/Receive Set



136653CF

- Capacitance: 2000pF ±30%
- Case size: 0.47"H x 0.62" Dia.
- Transmitter: bandwidth 4.0kHz/112dB, sound pressure level 119dB/40±1.0kHz
- Lead length/spacing: 0.39"
- Receiver: bandwidth 3.5kHz @ -71dB, min. sensitivity 65dB/40±1.0kHz (0dB vs 1V µbar) R=3.9kΩ

139491CF: Transmit/Receive Set



139491CF

- Capacitance: 2000pF ±20%
- Lead length/spacing: 0.28"
- Transmitter: bandwidth 5.0kHz/100dB, sound pressure level 112dB/40 ±1.0kHz
- Receiver: bandwidth 5.0kHz @ -75dB, min. sensitivity 67dB/40 ±1.0kHz (0dB vs 1V µbar) R=3.9kΩ
- Case size: 0.30"H x 0.43" Dia.

Part No.	Mfr. Cross Ref. No.	1	10	50
136653CF	40TR16F	$6.95	$6.29	$5.65
139491CF	40TR12B	6.95	6.29	5.65

0 to 1.45 PSI Pressure Sensor



- Typical full scale span @ 35mV: 0-10kPa (0-1.45 PSI)
- Maximum pressure (P_{MAX}): 75kPa (10.875 PSI)
- Operating volt. (typical): 3VDC @ 6mA
- Applications: air movement control, level indicators, leak detection, robotics and industrial controls
- 1/8" diameter tubing applicable
- Size: 0.7"Dia. x 0.78"Thick (with nozzle)

Part No.	Product No.	1	10	100
218827CF	MPX10GS	$8.99	$8.29	$7.49

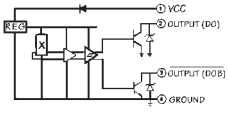
Latched Hall Effect Sensors



174043CF



169691CF



169691CF

- SP (south pole): on; NP (north pole): off
- Supply voltage: 20Vcc

169691CF: Complimentary open collector, output compatible with all digital logic families

Parameters	P/N 174043CF	P/N 169691CF
Supply Current	4mA	25mA
Output Current	20mA	300mA
Max. Operating Point & Max. Release Point (gauss)	≤ 130	≤ 90

Part No.	Mfr. Cross Ref. No.	1	10	100	1000
174043CF	HI-300	$.95	$.86	$.77	$.59
169691CF	HI-400	.89	.81	.72	.65

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SALE

An inexpensive means of switching loads up to 30 amps. While these small, low-cost relays are designed primarily for the appliance industry and the heating, air conditioning and ventilation markets, they are also well suited for automotive load management and other applications.

- Meets UL class F insulation standard
- Mechanical life expectancy is 10 million operations
- Electrical life expectancy is 100,000 operations at rated loads
- Dielectric strength: 1500Vrms (between contact and coil)

104926CF: Open frame relay
129349CF: Immersion cleanable, plastic sealed case
144186CF: For use with universal relay card (P/N 128910CF, pg 219)
195856CF: High dielectric strength of 4kV with 8mm clearance/creepage

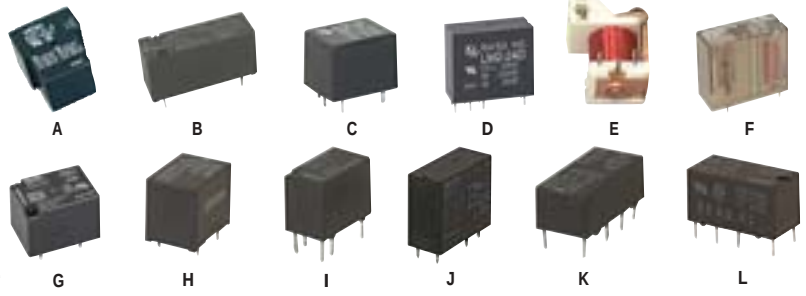



Fig. 1

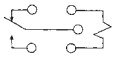

Fig. 2


Fig. 3

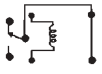
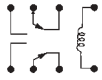
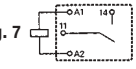
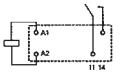

Fig. 4


Fig. 5


Fig. 6


Fig. 7


Fig. 8

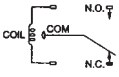
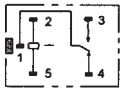
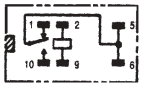


Fig. 9


Fig. 10


Fig. 11

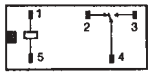

Fig. 12


Fig. 13


Fig. 14

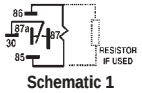
Part No.	Mfr. Cross Ref. No.	Manufacturer	Potter & Brumfield Cross Reference	Fig.	Contact Form	Coil Voltage	Coil (Ohms)	Contact Voltage	Contact Current	Pins	L x W x H (in.)	Pricing 1	10	50	100
145752CF	T90S1D12-12*	Magnecraft	T90S1D12-12	1A	SPST	12VDC	155	240VAC	30A	5	1.2 x 1.0 x .77	$2.45	$2.10	$1.85	$1.49
195864CF	RP838012	Schrack	—	8F	SPST	12VDC	270	250VAC	12A	4	1.1 x .48 x 1.0	$2.95 1.35	1.09	.81	.57
192778CF	TN423024	Schrack	T7NS1D1-24	7C	SPST	24VDC	1600	250VAC/30VDC	7A	4	.82 x .62 x .63	$2.25 1.05	.92	.84	.76
134949CF	FKD130PSDC5V	Rayex	T90S5D12-5	1A	SPDT	5VDC	27	240VAC/28VDC	20A	6	1.3 x 1.1 x .80	2.49	2.15	1.93	1.65
174449CF	LU-5	Rayex	T81H5D215	4C	SPDT	5VDC	125	120VAC/24VDC	1A/2A	6	.60 x .40 x .45	1.79	1.66	1.55	1.49
187151CF	G5LE-1DC5	Omron	—	10H	SPDT	5VDC	63	120VAC/30VDC	10A/8A	5	.90 x .65 x .75	1.49	1.30	1.15	1.15
187240CF	G5V-1-DC5	Omron	—	11I	SPDT	5VDC	166.7	125VAC/24VDC	.5A/1A	6	.50 x .30 x .40	2.05	1.79	1.59	1.59
104926CF	733SPDT12VDC*	Song Chuan	T90N5D12-12	1E	SPDT	12VDC	155	240VAC/28VDC	20A/10A	6	1.2 x .90 x .63	1.85	1.69	1.49	1.27
129349CF	832-IC-S	Song Chuan	T90S5D12-12	1A	SPDT	12VDC	155	277VAC/28VDC	20A/10A	6	1.2 x 1.0 x .75	$3.25 2.11	1.90	1.69	1.39
174393CF	LM1-12D	Rayex	RKA5DG12	5D	SPDT	12VDC	270	250VAC/30VDC	10A	5	1.2 x .48 x 1.0	$2.49 1.45	1.35	1.19	1.09
186669CF	G2R-14-DC12	Omron	—	12J	SPDT	12VDC	275	250VAC/30VDC	10A	5	1.2 x 1.0 x .51	$3.39 2.99	2.62	2.31	2.09
172937CF	JS1-12V	Nais (Aromat)	T72M5D121-12	9G	SPDT	12VDC	400	125VAC/24VDC	10A/5A	5	.85 x .62 x .63	1.09	.99	.89	.75
144186CF	JZC-22F	Velleman	VR15M121C	2C	SPDT	12VDC	337	120VAC/28VDC	15A	5	.80 x .64 x .80	3.79	3.39	3.05	2.75
174431CF	LEG12F	Rayex	T7CS5D12	2C	SPDT	12VDC	400	120VAC/24VDC	15A	5	.76 x .62 x .60	1.49	1.29	1.19	1.09
195856CF	G6R-1-DC12	Omron	—	3B	SPDT	12VDC	650	250VAC	8A	5	1.2 x .39 x .57	$3.95 2.95	2.39	1.79	1.25
184461CF	G5V-1-DC12	Omron	—	11I	SPDT	12VDC	960	125VAC/24VDC	.5A/1A	6	.50 x .30 x .40	2.25	1.79	1.58	1.42
187282CF	G6A-234PSTUSDC5	Omron	—	13K	DPDT	5VDC	125	125VAC/30VDC	.3A/1A	8	.80 x .40 x .33	$4.99 4.15	3.59	3.21	2.85
174377CF	LM2-12D	Rayex	RKA5DZ12	6D	DPDT	12VDC	270	250VAC/30VDC	5A	8	1.2 x .48 x 1.0	2.49	2.25	1.95	1.75
187258CF	G5V-2-DC12	Omron	—	14L	DPDT	12VDC	288	125VAC/30VDC	.5A/2A	8	.81 x .40 x .45	2.49	2.28	2.02	1.82
184452CF	G5V2-DC24	Omron	—	14L	DPDT	24VDC	1152	125VAC/30VDC	.5A/2A	8	.81 x .40 x .45	2.49	2.25	1.79	1.25
200740CF	G5V-2-HIDC24	Omron	—	14L	DPDT	24VDC	1152	125VAC/30VDC	.5A/2A	8	.81 x .40 x .45	2.59	2.35	1.89	1.39

*Manufacturer may vary

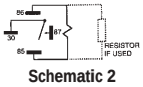
Potter & Brumfield Type Plastic Enclosed Construction Relays

VF4 Type

- Dielectric strength: 500VDC (between contact & coil)
- Operating temperature: -35°C to +85°C
- Contact current: 40A
- Coil voltage: 12VDC except P/N 171521CF (5VDC)
- Normally open (NO), normally closed (NC)
- Terminal type: quick connect
- Dimensions: 1.1"L x 1.1"W x 1.0"H



Schematic 1



Schematic 2

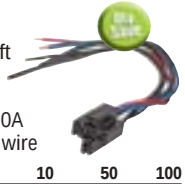

171432CF (Fig. 1) | 171441CF (Fig. 2) | 171459CF (Fig. 3)

Part No.	Mfr. Cross Ref. No.	P&B Cross Reference	Fig.	Contact Form	Coil Ohms	Contact Schematic	Contact Voltage	Pins	Pricing 1	10	50	100
171459CF	LD1A-12F	VF481F11S01	3	SPST-NO	78	2	14VDC	4	$1.89	$1.75	$1.39	$1.05
171441CF	961A-1A12D	VF411F11	2	SPST-NO	90	2	14VDC	4	$2.89 2.35	2.20	2.14	2.09
171432CF	961A-1C-12DM	VF481F11	1	SPDT	90	1	12VDC	5	2.99	2.69	2.25	1.65
171521CF	LD5F	VF445D11	1	SPDT	14	1	12VDC	5	$2.25 1.69	1.35	1.05	.71
148582CF	LD12F	VF485F11	1	SPDT	78	1	12VDC	5	2.49	2.25	1.95	1.75

Relay Socket with Coil Diode

VF4 Type

- For use with P/N 148582CF, left
- 12 AWG: 2 black & 1 blue wire
- 18 AWG: 1 black & 1 red wire
- Contact voltage/current: 12V/20A
- Diode coil suppression • 7.5" wire



Part No.	Ref. No.	1	10	50	100
170624CF	RSDO3	$2.35	$2.15	$1.69	$1.25



*See page 130 for our **NEW** selection of Molex Power Connectors and page 134 for Amphenol Connectors*

We'll match the advertised price of any like product.

Jameco's Low-Price Guarantee

It's that simple!

DC/AC and DC/DC Solid State Relays

• Screw terminal with hardware • Photo isolation • Metal mounting base • Manufacturer may vary


176698CF (Fig. 1)


153058CF (Fig. 2)

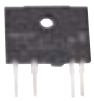

192815CF (Fig. 3)


162341CF (Fig. 4)


176735CF (Fig. 5)


173518CF (Fig. 6)


187004CF (Fig. 7)


164996CF (Fig. 8)


127790CF (Fig. 9)

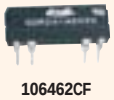
Part No.	Product No.	Mfr.	Control Voltage	Type	Contact Style	Contact Voltage	Contact Current	Pins	Fig.	Terminal Type	Agency Approval	Size L" x W" x H"	Pricing 1	10	50	100
Solid State Relays DC/AC Type																
153058CF	KSD203AC2	COSMO	4-32VDC	DC/AC	SPST	240VAC	3A	4	2	Solder Lead	—	1.4 x 0.3 x 0.9	**$9.95**	**$8.95**	**$7.95**	**$7.25**
162341CF	ESR51024-010 †	Excel	3-32VDC	DC/AC	SPST	240VAC	10A	4	4	Screw Terminal	UL	2.3 x 1.7 x 1.1	**15.95**	**14.39**	**12.95**	**11.65**
162368CF	ESR51024-025 †	Excel	3-32VDC	DC/AC	SPST	240VAC	25A	4	4	Screw Terminal	UL	2.3 x 1.7 x 1.1	**21.95**	**19.79**	**17.79**	**16.05**
162405CF	ESR51024-040 †	Excel	3-32VDC	DC/AC	SPST	240VAC	40A	4	4	Screw Terminal	UL	2.3 x 1.7 x 1.1	**22.99**	**20.69**	**18.69**	**16.79**
105081CF	615-8500	Teledyne	3-32VDC	DC/AC	SPST	250VAC	10A	4	3	Screw Terminal	UL	2.3 x 1.7 x 1.1	**15.99**	**14.39**	**12.99**	**11.69**
192815CF	KSD240AC8	COSMO	4-32VDC	DC/AC	SPST	250VAC	40A	4	3	Screw Terminal	—	2.3 x 1.8 x 0.6	**26.59**	**23.95**	**21.55**	**19.39**
175214CF	KB20C02A	Kyoto	3-32VDC	DC/AC	SPST	280VAC	2A	4	1	Solder Lead	—	1.4 x 0.3 x 1.5	**5.95**	**5.69**	**5.32**	**5.05**
127790CF	D2W202F	Crydom	3-32VDC	DC/AC	SPST	280VAC	2A	4	9	Solder Lead	UL/CSA	1.7 x 0.4 x 1.3 ~~$9.95~~	**6.49**	**6.29**	**5.99**	**5.99**
173518CF	RLYB4280	Phillips	3-32VDC	DC/AC	SPST	280VAC	4A	4	6	Solder Lead	—	1.7 x 0.4 x 1.5	**9.25**	**8.53**	**8.06**	**7.59**
176698CF	KB20C06A	Kyoto	3-32VDC	DC/AC	SPST	280VAC	6A	4	1	Solder Lead	—	1.4 x 0.3 x 0.9	**9.99**	**8.99**	**7.99**	**7.19**
176719CF	KD20C40AX	Kyoto	3-32VDC	DC/AC	SPST	280VAC	40A	4	5	Screw Terminal	—	2.3 x 1.7 x 0.9	**19.99**	**17.99**	**16.19**	**14.59**
176735CF	KD20C75AX	Kyoto	3-32VDC	DC/AC	SPST	280VAC	75A	4	5	Screw Terminal	—	2.3 x 1.7 x 0.9	**39.95**	**35.99**	**32.39**	**29.15**
204441CF	TD2420Q	Crydom	4-15VDC	DC/AC	4PST	280VAC	20A	13	–	Solder Lead	UL/CSA	2.3 x 1.8 x 0.9	**56.95**	**48.45**	**36.35**	**36.35**
186992CF	G3NA-210B-DC5-24	Omron	5-24VDC	DC/AC	—	240VAC	10A	4	7	Screw Terminal	UL/CSA	2.3 x 1.7 x 1.1 ~~$16.99~~	**14.29**	**13.55**	**12.89**	**12.25**
187004CF	G3NA-220B-DC5-24	Omron	5-24VDC	DC/AC	—	240VAC	20A	4	7	Screw Terminal	UL/CSA	2.3 x 1.7 x 1.1	**19.95**	**17.95**	**15.95**	**13.95**
164988CF	S101S02	Sharp	1.2VDC@20mA	DC/AC	—	125VAC	1.5A	4	8	Solder Lead	UL/CSA	0.9 x .16 x .63	**3.95**	**3.49**	**2.95**	**2.25**
164996CF	S202TA1	Sharp	1.2VDC@20mA	DC/AC	—	200VAC	2.0A	4	8	Solder Lead	UL/CSA	0.9 x .16 x .63 ~~$5.45~~	**4.95**	**4.49**	**4.05**	**3.65**
Solid State Relay DC/DC Type																
172591CF	KF0602D	Kyoto	3-32VDC	DC/DC	SPST	60VDC	2A	4	1	Solder Lead	—	1.4 x 0.3 x 0.9	**$9.95**	**$8.95**	**$7.95**	**$6.95**
175222CF	KF0604D	Kyoto	3-32VDC	DC/DC	SPST	60VDC	4A	4	1	Solder Lead	—	1.5 x 0.3 x 0.9	**11.95**	**11.25**	**10.25**	**9.22**
176647CF	KG1005D	Kyoto	3-32VDC	DC/DC	SPST	120VDC	5A	4	5	Screw Terminal	—	2.3 x 1.7 x 0.9	**26.99**	**24.29**	**21.79**	**19.59**
176655CF	KG1010D	Kyoto	3-32VDC	DC/DC	SPST	120VDC	10A	4	5	Screw Terminal	—	2.3 x 1.7 x 0.9	**29.99**	**26.99**	**24.29**	**21.89**

† Zero crossing

DIP Relays

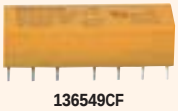
• Logic control levels • Long life with reliable operation • Moisture resistant • Compatible with IC sockets • Compact design/construction • Excellent for PCB applications

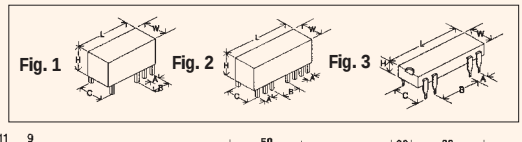
CLARE

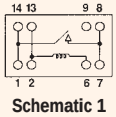

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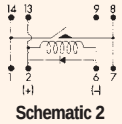

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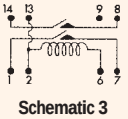

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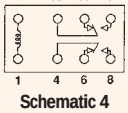

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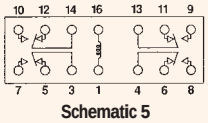


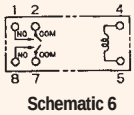

Schematic 1

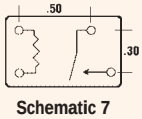

Schematic 2

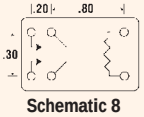

Schematic 3


Schematic 4


Schematic 5


Schematic 6


Schematic 7


Schematic 8

Part No.	Mfr. Cross Reference No.	Manufacturer	Contact Schem.	Contact Form	Coil Voltage	Coil Ohms	Contact Voltage	Contact Current	Pins	Jameco Socket	Fig.	Size L x W x H (in.)	Leads A x B x C (in.)	Pricing 1	10	50	100
106462CF	201A05	Excel Cell Elect.	1	SPST-NO	5VDC	500	100VDC	0.5A	8	37161	3	.78 x .25 x .20	.10 x .40 x .30	**$2.15**	**$1.81**	**$1.52**	**$1.25**
138430CF	2D1A05	Excel Cell Elect.	2	SPST-NO	5VDC	500	100VDC	0.5A	8	37161	3	.77 x .30 x .22	.10 x .40 x .30	**2.29**	**1.95**	**1.65**	**1.34**
215896CF	OJE-SS-109LMF	OEG	7	SBT-NO	9VDC	400	250VAC/30VDC	3A/3A	4	—	1	.71 x .39 x .57	.50 x .60 x .30	**2.29**	**1.95**	**1.69**	**1.39**
106471CF	201A12	Excel Cell Elect.	1	SPST-NO	12VDC	1000	100VDC	0.5A	8	37161	3	.78 x .25 x .20	.10 x .40 x .30 ~~$2.59~~	**2.29**	**1.95**	**1.65**	**1.39**
138448CF	2D1A1200	Excel Cell Elect.	2	SPST-NO	12VDC	1000	100VDC	0.5A	8	37161	3	.77 x .30 x .22	.10 x .40 x .30	**2.25**	**1.95**	**1.75**	**1.49**
192760CF	5MBU-5	Fujitsu	6	DPST-NO	5VDC	35	240VAC/24VDC	5A	8	—	1	1.13 x .50 x .98	.17 x .76 x .28	**1.95**	**1.75**	**1.49**	**1.25**
138456CF	202A05	Excel Cell Elect.	3	DPST-NO	5VDC	140	100VDC	0.5A	8	37161	3	.77 x .30 x .28	.10 x .40 x .30	**3.49**	**3.15**	**2.69**	**2.19**
129875CF	DS2EMDC5V*	NEC (MR62-5)	4	DPDT	5VDC	62.5	125VAC/30VDC	.6A/1A	8	37372	1	.79 x .40 x .39	.20 x .40 x .30 ~~$3.95~~	**2.99**	**2.77**	**2.45**	**2.09**
173913CF	AZ831-2C-5DSE	American Zettler	4	DPDT	5VDC	125	125VAC/100VDC	.5A/1.25A	8	37401	1	.79 x .38 x .44	.18 x .28 x .29	**2.35**	**2.15**	**1.69**	**1.25**
139977CF	RSB5S	Shin Mei	4	DPDT	5VDC	125	120VAC/30VDC	1A/2A	8	37372	1	.79 x .39 x .37	.20 x .40 x .30	**2.49**	**2.25**	**1.95**	**1.75**
99338CF	LM12C00	Clare	4	DPDT	6VDC	71	125VAC/100VDC	2A	8	37372	1	.79 x .40 x .43	.20 x .40 x .30	**2.49**	**2.25**	**1.79**	**1.35**
99311CF	DS2Y-S-DC12V*	Aromat (NAIS)	4	DPDT	12VDC	720	110VAC/30VDC	.3A/1A	8	37372	1	.79 x .40 x .43	.20 x .40 x .30 ~~$4.95~~	**2.49**	**2.31**	**2.05**	**1.75**
99901CF	LX200D00	Clare	4	DPDT	12VDC	720	125VAC/100VDC	2A	8	37372	1	.79 x .40 x .30	.20 x .40 x .30	**6.95**	**6.25**	**5.63**	**4.49**
99320CF	LM12E00*	NEC	4	DPDT	24VDC	1110	125VAC/100VDC	2A	8	37372	1	.79 x .40 x .43	.20 x .40 x .30	**2.95**	**2.69**	**2.39**	**2.15**
136549CF	DS4E-M-DC5V*	Aromat	5	4PDT	5VDC	62.5	125VAC/30VDC	.6A/2A	14	112299	2	1.40 x .40 x .36	.20 x .30 x .30 ~~$5.95~~	**5.49**	**4.95**	**4.45**	**4.05**
176313CF	DS4E-M-DC12V	Aromat	5	4PDT	12VDC	360	125VAC/30VDC	.6A/2A	14	112299	2	1.40 x .40 x .36	.20 x .30 x .30	**6.95**	**6.29**	**5.29**	**4.39**
206543CF	DS4E-S-DC5V-1C-N137	Aromat	6	4PDT	5VDC	125	250VAC/220VDC	2A	14	112299	2	1.40 x .40 x .42	.20 x .30 x .30	**8.45**	**7.77**	**7.10**	**6.82**
215909CF	RKA-7D2-12	P & B	8	DPST-NO	12VDC	270	250VAC/24VDC	5A/5A	6	—	1	1.13 x .49 x .97	.20 x .80 x .30	**2.29**	**1.95**	**1.69**	**1.39**

*Manufacturer may vary

General Purpose Relays

Pin Type Terminals

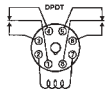
• DPDT • 8-pin

Series 78:

• Contact voltage: 240VAC

Series 250:

• Contact rating: 120/240VAC, 28VDC @ 10A
• Ambient temp. operating: -10˚C to +50˚C
• Size: 1.4"L x 1.4"W x 2.7"H




172718CF


139766CF


141145CF


139740CF

Series 78 Relay

Part No.	Mfr. Cross Reference No.	P & B Cross Reference	Coil Voltage	Pricing 1	10	50
172718CF	SCL12DPDT	K10-11D15-R	12VDC	$4.99	$4.49	$3.99

Series 250 Relays

139766CF	BTA1-2C-12VDC	R02-11D10-12	12VDC	$9.49	$8.55	$7.69
139740CF	BTA1-2C-120VAC	R02-11A10-120	120VAC	9.95	8.79	7.99

Series 250 Sockets

Part No.	Voltage	Current	Pins	Dimensions	1	10	50
141145CF	250VAC	20 amps	8	2.0"L x 1.6"W x 0.8"H	$3.99	$3.65	$2.99
141153CF	250VAC	20 amps	11	2.0"L x 1.7"W x 1.2"H	5.19	4.85	4.19

Quick Connect Blade Terminal – Series 388



DPDT 3PDT


141161CF

Flat terminals (0.187" x 0.020") for standard plug-in mounting; also accepts quick-connect receptacles or direct soldering.

• Contact rating: 120VAC/28VDC @ 13A/240VAC @ 10A
• Ambient temperature operating: -30˚C to +50˚C
• Size: 1.5"L x 1.4"W x 2.2"H

Part No.	Mfr. Cross Reference No.	P & B Cross Reference	Coil Voltage	Style	Pins	Pricing 1	10	50
139854CF	BTA2-3C-24VDC	R10-14D10-24	24VDC	3PDT	11	$8.69	$8.63	$8.39

Series 388 Socket

Part No.	Voltage	Pins	Amps	Dimensions	1	10	50
141161CF	250VAC	11	20	3.0"L x 1.4"W x 1.0"H	$3.69	$3.41	$2.99

OMRON G2R Power PCB Relay

• Operating frequency: 18,000 operations/hr. (mechanical); 1,800 operations/hr. (electrical; under rated load)
• Power consumption: approx. 530mW (non-loading DC coil); approx. 0.9 mW (non-loading AC coil)
• Service life: AC – 10,000,000 operations (min.); DC – 20,000,000 operations (min.)
• Contact voltage: 250VAC/30VDC
• Contact material: AgCdO
• Insulation resistance: 1,000MΩ (min. @ 500VDC)
• Coil voltage: 120VDC
• Dimensions: 1.40"L x 0.51"W x 1.00"H

SALE



Part No.	Product No.	Type	Pins	Coil Res. Ω	Contact Current	Pricing 1	25	50
186829CF	G2R-2-S-AC120	DPDT plug-in	8	6500	5A	~~$7.95~~ $5.45	$4.95	$4.49

Rayex General Purpose Relays

Potter and Brumfield Type LB2 Series

• DPDT • 8-pin
• Contact rating: 240VAC/30VDC @ 12A
• Mechanical life: 10,000,000 operations
• Electrical life: 100,000 operations min. at rated load


175564CF


175572CF

Part No.	Product No.	P & B Cross Ref.	Coil Voltage	1	10	50	100
172718CF	SCL12DPDT	K10-11D15-12	12VDC	$4.99	$4.49	$3.99	$3.59
175564CF	LB2-24DS	K10-11D15-24	24VDC	5.99	5.49	4.93	4.49
175572CF	LB2-110AS	K10-11A15-120	110VAC	6.25	5.49	4.99	4.39

Rayex LB2 Socket

• DIN rail snap socket for LB2 relays



Part No.	Product No.	P & B Cross Reference	Pins	1	10	50
175530CF	PTF08AA	27E895	8	$5.95	$5.39	$4.85

Rayex LB4H Series

• 4PDT • 14-pin
• Insulation resistance: 1,500MΩ @ 500VDC
• Mechanical life: 10,000,000 operations
• Electrical life: 100,000 operations min. at rated load
• Contact rating: 240VAC/24VDC @ 5A; except P/N 183011CF 220VAC/24VDC @ 5A

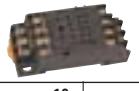

175601CF


175610CF

Part No.	Product No.	P & B Cross Ref.	Coil Voltage	1	10	50	100
183011CF	GM4PDT12DF	KHAU-17D12-12	12VDC	$6.95	$6.38	$6.04	$4.99
175601CF	LB4H-24DS	KHAU-17D12-24	24VDC	4.95	4.45	3.99	3.59
175610CF	LB4H-110AS	KHAU-17A12-120	110VAC	4.25	3.85	3.45	3.25

Rayex LB4H Socket

• DIN rail snap socket for LB4H relays



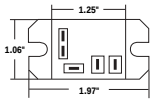
Part No.	Product No.	P & B Cross Reference	Pins	1	10	50
175556CF	PYF14AA	PYF14AA	14	$3.95	$3.49	$2.95

T9A Series Relay

Low Cost PC Board or Panel Mount Only



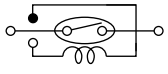
• Contact form: SPDT • Coil voltage: 12VDC
• Coil: 155Ω • Contact voltage: 240VAC/28VDC
• Contact current: 20A/10A • 5-pin
• Terminal type: 0.1" disconnect (2); 0.25" disconnect (3)
• Mechanical life expectancy is 10 million operations
• Operating temperature: -55˚C to +85˚C
• Dielectric strength: 1500VAC (between open contacts)
• Dimensions: 2.0"L x 1.6"W x 1.8"H



Part No.	Product No.	P & B Cross Ref.	1	10	50	100
137357CF	953-IC-12DM	T9AS5D52-12	$2.55	$2.45	$2.19	$1.75

Reed Type Relay

• Manufacturer: Bestar
• Contact form: SPST-NO
• Coil voltage: 12VDC • Coil: 1050Ω
• Contact voltage: 120VAC/60VDC
• Contact current: 0.1A
• Dielectric strength: 1500VDC (between contact and coil)
• 4-pin • Operating temperature: -30°C to +60°C • Terminal type: PCB solder





Part No.	Product No.	Dimensions	1	10	50	100
111448CF	RC108T	1.0"L x .37"W x .38"H	$.55	$.49	$.45	$.39



See the yellow and green highlighted items.

Jameco Special Values!

Details on page 3.

Aluminum & Brass Threaded Standoffs

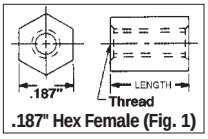
† Finish: Iridite (clear)[1] per MIL-C-5541-D; bright tin plate[2]; stainless steel[3]



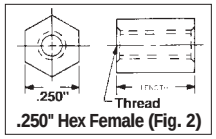
Hex
.187"/.250" Female



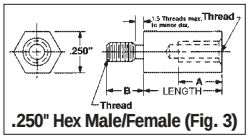
Hex
.250" Male/Female



.187" Hex Female (Fig. 1)



.250" Hex Female (Fig. 2)



.250" Hex Male/Female (Fig. 3)

.187" Hex Female

4-40 Thread (Fig. 1) .187" Hex

10 piece minimum

Part Number	Metal†	Hex Length	Pricing 10	100	1000
175636CF	Brass[2]	.187"	$.15	$.13	$.096
102795CF	Brass[2]	.240"	.21	.15	.10
133612CF	Alum[1]	.250"	.20	.14	.08
133639CF	Alum[1]	.500"	.22	.20	.11
139791CF	Alum[1]	.562"	.18	.15	.13
133647CF	Alum[1]	.625"	.14	.13	.11
133655CF	Alum[1]	.750"	.39	.23	.14
139184CF	Alum[1]	1.000"	.39	.32	.27

.250" Hex Female

4-40 Thread (Fig. 2) .250" Hex

✳ Prepackaged: order in increments of 10, 100 or 1000

Part Number	Metal†	Hex Length	Pricing 1	10	100	1000
139192CF	Alum[1]	.250"	✳	$.16	$.12	$.08
77500CF	Alum[1]	.375"	✳	.20	.15	.09
134762CF	Alum[1]	.437"	✳	.21	.18	.15
108370CF	Alum[1]	.500"	✳	.25	.17	.10
77518CF	Alum[1]	.625"	.42	.35	.19	.14
133604CF	Alum[1]	.750"	.39	.35	.19	.14
139205CF	Alum[1]	1.000"	.49	.35	.25	.15

.250" Hex Female

6-32 Thread (Fig. 2) .250" Hex

✳ Prepackaged: order in increments of 10, 100 or 1000

Part Number	Metal†	Hex Length	Pricing 1	10	100	1000
77534CF	Alum[1]	.250"	✳	$.22	$.14	$.08
133591CF	Alum[1]	.375"	✳	.29	.13	.09
77542CF	Alum[1]	.500"	✳	.22	.17	.10
77551CF	Alum[1]	.625"	✳	.25	.19	.14
77569CF	Alum[1]	.750"	✳	.28	.21	.13
77577CF	Alum[1]	1.000"	.59	.35	.30	.16
143407CF	Alum[1]	1.500"	.69	.61	.49	.42
143440CF	Alum[1]	1.750"	.79	.59	.48	.41

.250" Hex Male/Female

4-40 Thread (Fig. 3) (Thread A: 0.250"; B: 0.187")

✳ Prepackaged: order in increments of 10, 100 or 1000

Part Number	Metal†	Hex Length	Pricing 1	10	100	1000
77585CF	Alum[1]	.250"	✳	$.37	$.17	$.11
77593CF	Alum[1]	.375"	✳	.34	.19	.11
111755CF	Alum[1]	.500"	✳	.44	.36	.20
175628CF	Steel[3]	.580"	✳	.19	.14	.10
139213CF	Alum[1]	.625"	✳	.39	.35	.29
139221CF	Alum[1]	.750"	✳	.39	.35	.21
139230CF	Alum[1]	1.00"	.49	.44	.36	.30
128565CF	Alum[1]	1.25"	.59	.53	.44	.38
166545CF	Alum[1]	1.50"	.75	.65	.59	.49

.250" Hex Male/Female

6-32 Thread (Fig. 3) (Thread A: 0.375"; B: 0.250")

10 piece minimum

Part Number	Metal†	Hex Length	Pricing 10	100	1000
133541CF	Alum[1]	.250"	$.35	$.21	$.11
133567CF	Alum[1]	.375"	.35	.22	.12
77606CF	Alum[1]	.500"	.29	.23	.12
77622CF	Alum[1]	.750"	.35	.28	.15
77649CF	Alum[1]	1.000"	.40	.32	.17
206623CF	Steel[3]	1.250"	.34	.29	.19

RAF Instrumentation Handles

- 5/8" oval diameter
- 9/32" thick
- 10-32 internal thread size

211158CF:
- Color: black
- Base metal: aluminum

216821CF:
- Color: nickel plate
- Base metal: brass



211158CF



216821CF

Part No.	Size (L" x H")	1	10	100
211158CF	3.0 x 1.8	$2.79	$2.35	$1.95
216821CF	3.0 x 1.3	~~$2.79~~ 2.65	2.23	1.67

3M Adhesive Rubber Feet

These are perfect for project boxes, providing a non-slip, non-scratch surface.



Fig. 1



Fig. 2



Fig. 3



Fig. 4



126981CF



119618CF

Part No.	Product No.	Type	Fig.	Pack	Dimensions (W" x H")	1	10	50
119618CF	SJ5012BLK4	Black cylindrical	1	4	.50 x .14	$.39	$.28	$.26
142658CF	SJ5012BLKC	Black cylindrical	1	100	.50 x .14	5.95	5.35	4.79
142771CF	SJ5008BLKC	Black tapered square	2	100	.50 x .12	6.69	4.76	3.40
142682CF	SJ5018BLKC	Black tapered square	3	100	.50 x .23	9.95	8.25	5.39
126981CF	SJ5023BLK4	Black tapered square	4	4	.81 x .30	1.95	1.75	1.59
142666CF	SJ5023BLKC	Black tapered square	4	100	.81 x .30	14.25	9.10	8.69



See page 122 for Spacers/Standoffs Assortments.



SAE Hardware

- Zinc-plated steel



Prepackaged: order in increments of 100 or 1000

Slotted Pan Head Machine Screws

Part Number	Screw Size	Thread	Length (inches)	100 piece minimum 100	1000
38172CF	2-56	Std	.250	~~$.04~~ $.025	$.022
40951CF	4-40	Std	.250	.019	.011
40969CF	4-40	Std	.375	.017	.012
106809CF	4-40	Std	.500	.018	.013
106542CF	6-32	Std	.250	~~$.02~~ .018	.013
42446CF	6-32	Std	.375	.019	.014
42438CF	6-32	Std	.500	.019	.015
106796CF	8-32	Std	.500	.019	.017

Hex Nuts

38164CF	2-56	Std	.183	$.022	$.014
211123CF	4-40	Sm	.184	.023	.011
40942CF	4-40	Std	.243	.025	.013
42420CF	6-32	Std	.306	.023	.014
51553CF	8-32	Std	.334	.02	.014

Flat Washers

Part Number	Screw Size	Dia. (inches)	100 piece minimum 100	1000
211131CF	4	.237	$.024	$.017
106825CF	4	.281	.022	.019
106833CF	6	.373	.022	.019
106841CF	8	.377	.016	.014

Internal Tooth Lock Washers

106850CF	4	.258	$.018	$.015
106868CF	6	.277	.018	.014
106876CF	8	.323	.023	.015

Split Lock Washers

106788CF	2	.161	$.024	$.016
211140CF	4	.201	.02	.015
40977CF	4	.242	.02	.015
42462CF	6	.240	.011	.009
51609CF	8	.279	~~$.04~~ .012	.006

PCB Standoff Mounting Hardware



28337CF



129251CF



148056CF



156831CF

- Snap "on"
- Nylon

28337CF: 1.2"L x 0.6"W for 0.2" holes
129251CF: 0.9"L x 0.4"Dia. for 0.2"/0.3" holes
148056CF: 0.8"L x 0.5"W for 0.1"/0.2" holes
156831CF: 0.68"L x 0.32"Dia for 0.140" holes

- 10 piece minimum

Part No.	Mfr. Cross Ref. No.	10	100	1000
28337CF	PCST	~~$.15~~ $.12	$.07	$.04
129251CF	PCST2	.18	.11	.075
148056CF	PCST3	.09	.08	.06
156831CF	KCS10	.125	.093	.063

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Electro Design

Color Code Legend: New Sale Qty Save

Prototype Builder Boards, Enclosures and Hardware

Call for additional OEM pricing.

The prototype builder boards on this page are specifically designed to fit into our ABS speedy boxes, die cast aluminum enclosures, aluminum boxes, metal cabinets and heavy-duty instrument cases shown in each grouping. These pre-cut boards have 2 or 4 mounting holes compatible with the PC board mounting hardware listed at the bottom, right (P/N 106551CF).

Board description: laminated glass epoxy 1/16" thick fire retardant per FR-4 specs. Copper-clad and solder mask one side. Drilled holes: .035" diameter on .080" square pad. Pads spaced on .10" x .10" grid.

See page 109 for hardware and knobs;
see page 113 for more printed circuit board details



*All boards sold individually; multiple boards shown

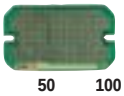
ABS Speedy Enclosures



Will not crack or split when drilled or punched. PCB mounting slots on all four sides. Lid has a lip for precision fit (adds 0.4" height). Complete with four screws and lid. All sizes below are for interior dimensions. • Color: black • ABS plastic

Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
18921CF	H2855	3.1" x 2.0" x 0.9"	0.1	$2.99	$2.69	$2.45	$2.19
18913CF	H2853	4.9" x 2.5" x 1.5"	0.2	3.49	3.15	2.85	2.55
18892CF	H2851	6.0" x 3.5" x 1.9"	0.4	4.49	4.05	3.65	3.29
18905CF	H2852	7.5" x 4.3" x 2.3"	0.5	6.49	5.85	5.29	4.75

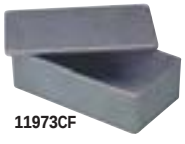
Printed Circuit Boards for Above Enclosures



• Power/ground, perimeter bus with pad per hole (*except P/N 105099CF) • Plated one side holes

Part No.	Product No.	Size (L x W)	No. of Holes	1	10	50	100
105099CF*	2855PCB	2.7" x 1.6"	288	$4.95	$4.49	$3.95	$3.59
105128CF	2853PCB	4.4" x 2.0"	669	7.95	6.95	6.25	5.59
105152CF	2851PCB	5.5" x 3.1"	1450	9.95	8.95	7.95	6.95
105161CF	2852PCB	7.0" x 3.6"	2225	14.95	13.45	11.95	10.95

Die-Cast Aluminum Enclosures



High-quality die-cast aluminum cases come with channeled walls for easy PCB mounting. Ideal for RF circuits because the lid forms an effective screen against RFI interference. Made from aluminum, an excellent heat-sink, these cases are great for high temp circuits (up to 600°C). Complete with screws.

Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
11957CF	B5002	3.9" x 2.0" x 1.0"	0.2	$5.95	$5.39	$4.85	$4.35
11965CF	B5004	4.7" x 2.4" x 1.6"	0.4	7.95	7.15	6.44	5.79
11973CF	B5006	7.5" x 4.3" x 2.4"	1.2	13.49	12.15	10.95	9.85

Printed Circuit Boards for Above Enclosures



• Power/ground, perimeter bus with pad per hole
• Plated one side holes

Part No.	Product No.	Size (L x W)	No. of Holes	1	10	50	100
105101CF	5002PCB	3.5" x 1.5"	365	$6.95	$6.25	$5.59	$4.95
105128CF	2853PCB	4.4" x 2.0"	669	7.95	6.95	6.25	5.59
105161CF	2852PCB	7.0" x 3.6"	2225	14.95	13.45	11.95	10.95

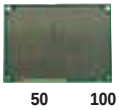
Aluminum Enclosures



Ideal boxes for those projects that get left lying around! Put them in an economical aluminum enclosure. The enclosure comes in two pieces which slide together.

Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
11869CF	B2300	4.0" x 2.0" x 2.8"	0.2	$5.45	$4.69	$4.22	$3.79
11885CF	B2320	5.0" x 4.0" x 3.0"	0.4	7.89	6.15	5.55	4.99
11893CF	B2335	7.0" x 6.2" x 4.6"	0.8	10.95	9.25	8.29	7.49

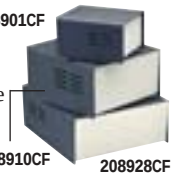
Printed Circuit Boards for Above Enclosures



• Power/ground, perimeter bus w/ pad per hole
• Ground Bus • Plated one side holes

Part No.	Product No.	Size (L x W)	No. of Holes	1	10	50	100
105110CF	2300PCB	3.4" x 2.4"	637	$7.95	$6.95	$6.25	$5.59
105136CF	2320PCB	4.5" x 3.3"	1266	9.95	8.95	7.95	6.95
105179CF	2335PCB	6.5" x 5.0"	2829	14.95	13.49	11.95	10.95

Metal Enclosures



High-quality metal enclosures are made to suit a large variety of electronics projects and applications. The base is made of aluminum. Slots are located on the sides of the cases for maximum cooling. Cases screw together and come with an attractive two-tone finish.

• Mounting screws and rubber feet included
• Glossy black textured steel top cover and ivory aluminum base

Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
208901CF	B2741A	4.0" x 3.3" x 2.2"	0.4	$6.49	$5.89	$5.29	$4.69
208910CF	B2743A	5.9" x 5.3" x 3.0"	0.8	7.99	7.19	6.49	5.89
208928CF	B2744A	7.3" x 6.3" x 2.8"	1.1	8.99	7.99	7.19	6.49
209349CF	B2746A	6.3" x 7.8" x 2.5"	0.9	12.99	11.69	10.49	9.49
209357CF	B2747A	7.5" x 9.8" x 3.2"	1.4	14.99	13.49	12.19	10.99

Printed Circuit Boards for Above Enclosures

• Power/ground, perimeter bus with pad per hole • Plated one side holes

Part No.	Product No.	Size (L x W)	No. of Holes	1	10	50	100
105110CF	230APCB	3.4" x 2.4"	637	$7.95	$6.95	$6.25	$5.59
206578CF	2743APCB	4.6" x 4.3"	1684	6.99	6.29	5.69	5.19
206586CF	2746APCB	4.3" x 6.8	2550	9.99	8.99	8.19	7.39
206594CF	2747APCB	5.5" x 8.0"	3906	13.99	12.59	11.29	10.19
105179CF	2505PCB	6.5" x 5.0"	2829	14.95	13.49	11.95	10.95

Heavy-Duty Instrument Cases



Both cases split apart for ease of working. Four plastic feet molded on unit. P/N 18876CF includes ventilation and speaker sound slots. • Color: gray

Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
18868CF	H2505	7.9" x 6.3" x 2.5"	0.8	$7.39	$6.69	$5.99	$5.39
18876CF	H2507	10.0" x 7.5" x 3.1"	1.4	8.99	7.99	7.28	6.55

Printed Circuit Boards for Above Instrument Cases

• Power/ground, perimeter bus with pad per hole • Plated one side holes

Part No.	Product No.	Size (L x W)	No. of Holes	1	10	50	100
105179CF	2505PCB	6.5" x 5.0"	2829	$14.95	$13.49	$11.95	$10.95
105187CF	2507PCB	8.8" x 6.1"	4771	29.95	26.95	23.95	21.95

ABS Enclosures w/ Clear Tops



Made of gray ABS plastic w/ clear polycarbonate top cover. Includes screws for mounting boards or electronic components, rubber gasket for a tight seal on your equipment & drilled holes for mounting.

Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
141831CF	203C1	4.6" x 3.2" x 1.8"	0.3	$8.95	$8.09	$7.25	$6.55
141840CF	203D1	6.3" x 3.2" x 1.8"	0.4	9.95	8.99	8.09	7.25
141858CF	203F1	7.0" x 5.5" x 2.5"	0.8	11.95	10.79	9.69	8.69

Mounting Hardware for PC Boards



• 4 spacers, 8 screws and 8 washers

Part No.	Description	1	10	50	100
106551CF	PC board mounting hardware	$1.79	$1.65	$1.45	$1.35

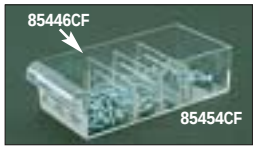
For 3M Adhesive Rubber Feet, see page 109.



Component Cabinet



81701CF



Drawer (85454CF) Divider (85446CF)

- Drawer can be divided into 4 sections (clear)
- Wall mountable cabinet (ABS black)
- Cabinet size: 6.0"D x 15"W x 7.9"H • Wt.: 4.7 lbs.
- Drawer size: 5.5"L x 2.7"W x 1.5"H
- Divider size: 2.4"L x 1.1"H

Includes: 20 clear plastic drawers, 20 dividers and 30 adhesive I.D. labels

✳ **Prepackaged: order in increments of 10 or 50**

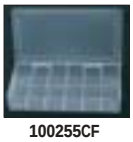
Part No.	Description	1	10	50
81701CF	Component cabinet	$15.95	$13.95	$12.49
85454CF	Drawer for cabinet	.39	.35	.29
85446CF	Divider for drawer ✳	.19	.17	

Plastic Fliptop Boxes

- Clear plastic box with a clear plastic lid and removable dividers

100255CF: Size: 8.4"L x 4.5"W x 1.4"H
- 18 compartments (1.4" x 1.5" each)

148902CF: Size: 10.2"L x 4.7"W x 1.6"H
- 12 compartments (1.7" x 2.3" each)



100255CF

Part No.	Description	1	10	100
100255CF	18 compartments	$2.25	$1.95	$1.75
148902CF	12 compartments	3.95	3.49	2.95

Plastic Fliptop Box

Double-Sided Box

- Unique double-sided design allows box to be opened from both top and bottom
- Size: 6.5"L x 4.0"W x 1.5"H



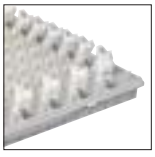
Part No.	Description	1	10	100
148865CF	Double sided box	$2.59	$2.29	$1.95

Plastic Fliptop Case for SMDs

128 Compartments for Surface Mount Components



- 8 rows x 16 columns grid
- Fliptop openings on each bin
- Padded cover locks bins closed
- Perfect match to store P/N 156881CF SMD resistor assortment, pg 83
- Size: 11.0"L x 8.3"W x 1.7"Thick
- Weight: 1.4 lbs. •Color: gray

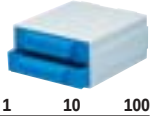


Includes: Labels for each bin

Part No.	Description	1	10
164267CF	SMD fliptop case	$49.95	$44.99

Stackable Drawers

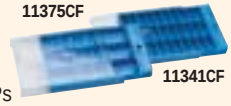
- Case size: 4.5"L x 4.4"W x 2.3"H
- Drawer size: 4.4"L x 4.0"W x 0.9"H
- Color: blue/white



Part No.	Description	1	10	100
11906CF	Case/drawers	$2.95	$2.49	$1.95

Bug Boxes

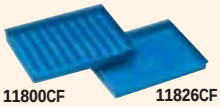
- Anti-static plastic
- Fits in bug cage (P/N 11332CF, below)
- **11341CF:** stores sixty 8-pin or thirty 16-pin DIPs
- **11375CF:** Designed to store all types of components
- Box size: 4.9"L x 3.3"W x 0.6"H



Part No.	Description	1	10	100
11341CF	30 compartments	$3.95	$3.49	$3.15
11375CF	3 compartments/6 vertical & 6 horizontal dividers	4.49	3.95	3.49

Bug Trays

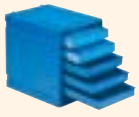
- Fits in bug cage (P/N 11332CF, below)
- **11826CF Open:** 1 compartment 4.6"L x 3.2"W x 0.4"H
- **11800CF Divided:** 10 compartments 3.2"L x 0.4"W x 0.4"H ea.
- Tray size: 4.8"L x 3.6"W x 0.5"H



Part No.	Description	1	10	100
11826CF	Open bug tray	$3.45	$3.05	$2.69
11800CF	Divided bug tray	3.45	3.10	2.79

Bug Cage

- Holds bug boxes or trays
- Modular and interlocking
- Color: blue • Weight: 0.7 lbs.
- Case size: 5.0"L x 3.9"W x 5.1"H



Drawers not included

Part No.	Description	1	10	100
11332CF	Bug cage	$7.95	$7.15	$6.39

Hardware and Knobs

Aluminum Instrumentation Knobs

(1/8" and 1/4" Shaft Diameters)

Includes: Set screw for secure attachment

138384CF: • Coarse surface for sensitive control



162481CF Fig. 1



138384CF Fig. 2



162499CF Fig. 3



162481CF Fig. 4

Part No.	Mfr. Cross Ref. No.	Figure	Description	Shaft Dia. (in.)	Size (in.) Dia.	Size (in.) Height	Pricing 1	Pricing 10	Pricing 100
162481CF	K5-1/4S	1	Silver position pointer	.250	.50	.56	$1.19	$1.09	$.96
138384CF	KD500G	2	Silver position pointer	.125	.50	.63	1.39	1.25	.99
162499CF	K5-1/4B	3	White position pointer	.250	.50	.56	1.55	1.39	1.07
138481CF	KN031	4	Black position pointer	.250	.61	.65	1.49	1.35	1.15
138501CF	KN032	4	Black position pointer	.250	.87	.75	1.95	1.71	1.55
138510CF	KN033	4	Black position pointer	.250	1.18	.87	2.49	2.24	1.95

Instrumentation Knobs

(1/4" Shaft Diameters)



102787CF



104176CF



202286CF

- Fits 0.25" shafts

102787CF/104176CF/202286CF:
- Brass insert and set screw for strength and durability
- Compatible with all rotary switches



136240CF/ 138392CF

136240CF: • Used with 1/2-watt and 2-watt linear taper potentiometers, pg 90 & 91

138392CF: • Brass insert, dual set screws
- Black knob with inset chrome top

Part No.	Mfr. Cross Ref. No.	Size	1	10	100
102787CF	KN141	1.25"L x .54"H	$.64	$.41	$.39
104176CF	KN143	.75"D x .49"H	.99	.85	.65
202286CF	K14SM	.80"D x .60"H	.79	.69	.64
136240CF	KN145	.54"D x .52"H	.65	.55	.49
138392CF	PKG90B	.85"D x .56"H	.79	.59	.54

Hardware and Spacer Assortment Kit

Includes 2300 pcs. (23 types) Spacers, Nuts, Flat, Tooth & Lock Washers and Slotted PH Screws

SAVE $21

100 each Spacers	100 each Hex nuts	100 each Flat	100 each Int. tooth	100 each Split lock	100 each PH machine screws
—	2-56	—	—	#2	2-56 x 1/4, —
4-40	4-40	#4	#4	#4	4-40 x 1/4, 1/2
6-32	6-32	#6	#6	#6	6-32 x 1/4, 1/2
8-32	8-32	#8	#8	#8	8-32 x 1/2, —

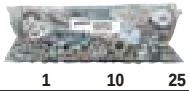


108433CF (Hardware Kit)
Includes P/N 81701CF above

Part No.	Description	Wt. (lbs.)	1	10
108433CF	2300 pcs. Hardware kit with component cabinet	7.5	$59.95	$53.95
130497CF	Refill for 108433CF (2300 pcs.)	2.7	39.95	35.95

Spacers and Standoffs Assortments

• Round • Hex • Aluminum • Brass • Steel • Plastic • Nylon



Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10	25
166481CF	GB440	100 asst. 4-40 spacers/standoffs	0.5	$6.95	$6.25	$5.59
166490CF	GB632	100 asst. 6-32 spacers/standoffs	0.5	6.95	6.25	5.59
55968CF	GB140	100 asst. 4-40, 6-32, 8-32 round/hex, alum/brass/nylon spacers	0.3	7.95	6.95	6.25
135423CF	GB140LB	1 lb. (310 pcs) same as P/N 55968CF	1.0	17.95	15.95	13.95

Don't worry about backorders. Over 99% of our products are in stock!

We'll Send It Today!

Just place your order by 6PM EST for same business day shipment.

Solderless Breadboards, Prototype Boards & Accessories

These long-lasting solderless breadboards feature screen-printed color coordinates suitable for many types of digital and analog prototyping and circuit design. Larger models feature a heavy-duty aluminum backing with binding posts. Use Jameco's AC/DC breadboard power supply, P/N 77681CF (pg 115).

- Accepts most electronic components, including integrated circuits and transistors for digital and/or analog circuitry • 0.1" hole spacing
- Pins are identified by numbered rows and columns
- Ideal for high frequency and low noise circuits
- One-year warranty * WBU5 and JE series do not interconnect


20757CF


20773CF


20790CF


20811CF

Attention Educators! Buy jumper wire (pg 115) in bulk and SAVE! **(see Hook-up Wire on page 125)**

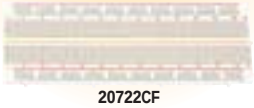
WBU5 Series Key Features:
- Horizontal assembly corresponds to the operation flow design of the PC boards for handy operation
- Round hole design makes the electric connection better
- Formed with V-shaped cross-sectional groove, which allows DIP IC pins to be inserted across two parts and to increase the rate of utilization due to small pitch
- Dovetail protrusions and recesses designed to connect two adjacent parts tightly together

JE Series Key Features:
- Use to breadboard and debug circuit designs
- Low static, plastic body – CMOS safe
- Nickel-plated clips designed to withstand up to 5,000 insertion cycles
- Breadboard strips connect together to form larger working areas
- Components are easily interconnected using 20-28 AWG wire (P/N 19289CF & 20079CF, pg 115)
- Some models feature heavy-duty aluminum backings (JE24, JE27, WBU504)


20600CF

94457CF


20669CF


20722CF


136901CF

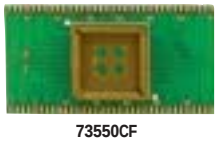

77825CF

Part Number	Product Number*	Terminal Strips	Bus Strips	Contact Points	Binding Posts	Breadboard Size L" x W"	Baseplate Size L" x W"	Weight (lbs.)	Pricing 1	10	50	100
94457CF	JE19	0	1	100	0	6.5 x 0.4	—	0.04	$2.95	$2.65	$2.39	$2.15
20600CF	JE21	1	2	400	0	3.3 x 2.1	—	0.13	4.95	4.49	3.95	3.49
20669CF	JE22	1	0	630	0	6.5 x 1.4	—	0.20	5.49	4.95	4.49	3.95
194280CF	JE35	1	1	740	0	6.9 x 2.1	—	0.23	9.95	8.99	8.09	7.25
194298CF	JE37	1	2	840	0	6.9 x 2.4	—	0.25	9.95	8.95	7.95	7.25
194255CF	JE38	1	2	970	4	2.9 x 5.6	4.9 x 6.3	0.50	16.95	15.25	13.75	12.35
20722CF	JE23	1	2	830	0	6.5 x 4.0	6.5 x 2.1	0.30	8.95	7.95	7.25	6.55
194271CF	JE34	2	3	1,560	3	6.5 x 4.0	8.5 x 4.7	0.73	15.95	14.39	12.95	11.65
20757CF	JE24	2	1	1,360	2	6.5 x 3.1	8.5 x 4.0	0.60	12.95	11.95	10.95	9.95
136901CF	WBU504*	2	3	1,855	4	5.5 x 5.5	7.4 x 6.3	0.90	22.99	20.99	18.99	16.99
20773CF	JE25	2	4	1,660	3	6.5 x 4.3	8.5 x 5.1	0.80	18.95	16.95	14.95	13.95
20790CF	JE26	3	5	2,390	4	6.9 x 5.8	9.1 x 6.9	1.10	25.95	23.39	21.05	18.95
20811CF	JE27	4	7	3,220	4	7.3 x 7.5	9.5 x 8.3	1.40	31.95	29.95	27.95	25.95

Part No.	Description	1	10	25
77825CF	Breadboard pin to breadboard pin test leads (20 pk), 4 each color-coded (red, yellow, blue, black, white), 20 AWG wire, 5.9"L (15cm)	$12.95	$11.69	$10.49

PLCC Prototype Adapters

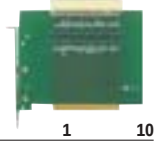
PLCC socket mounted on a circuit board for easy wire wrap or design prototyping. Solder masked PCB with 0.25" long leads.


73550CF

- PCB construction
- Silkscreen numbers identify pin numbers in groups of 5 and 10 • Gold-plated round pins
- Tin-plated PLCC connector
- PLCC socket identifies pin 1 and orientation key
- PLCC socket slotted for PLCC chip remover

Part No.	Pins	Size (L x W)	1	10	100
73541CF	44	2.3" x 1.6"	$11.95	$10.79	$9.69
73550CF	68	3.4" x 1.6"	15.95	14.49	12.95
73568CF	84	4.3" x 1.9"	23.95	21.59	19.45

PCI-Bus Extender Card



- PCI Bus
- Extends life of motherboard connectors
- Gold-plated fingers for long life
- Size: 5.9"L x 5.4"W

Part No.	Description	1	10
141381CF	PCI-bus extender card	$74.95	$67.49

BestProto AT/ISA Prototyping Board



- Can accommodate a PGA package with a 31 x 31mm footprint
- Twenty-one 1206 surface-mount bypass capacitor sites and 142 unconnected sites
- Size: 8.2"L x 4.2"W

Low noise power and ground planes

Includes: Signal definition chart

Part No.	Description	1	10	25
136469CF	AT/ISA board ~~$29.99~~	$24.95	$22.49	$20.25

PCI-Bus Prototype Board



- All plated through holes
- 0.1" hole spacing
- 50 Mil power and ground grids
- Provision for wire wrap and bypass caps
- Impedance matched to bus specifications
- Easy access to every signal on the bus
- Size: 12.4"L x 5.0"W • Weight: 0.6 lbs.

Part No.	Description	1	10
141372CF	PCI prototype bus board	$74.95	$67.49

8/16-Bit PC/XT/AT Solderless Plug-In Breadboard

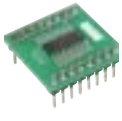


- IBM PC/XT/AT and higher compatible
- 62 data I/O lines and a DB25 female connector for interfacing to peripherals
- Twenty-four 14-pin IC capacity
- Clearly labeled bus lines • 2,352 contact points
- Durable construction • One-year warranty
- Size: 13.8"L x 5.0"W • Weight: 1.0 lb.

Easy PC/XT/AT Prototyping!

Part No.	Description	1	10	25
81672CF	8/16-bit breadboard	$59.95	$53.95	$47.95

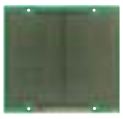
See page 82 for Jameco's new addition of surface mount proto boards.



General Purpose Prototyping Boards

Select the prototype board that fits your needs from our comprehensive product listing. Prototyping boards with punched holes are convenient, economical tools for assembling circuit components and trying cost-effective alternatives to custom designs.

- 0.062" board thickness
- 0.1" hole spacing
- 0.08" pad size
- Plated through pads are double-sided
- PCB material epoxy glass

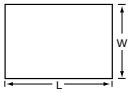

206578CF


21434CF

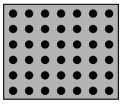

52943CF

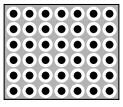

21477CF

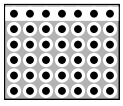
Board Outline

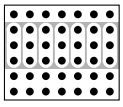


Circuit Patterns


A
Holes Only


B
Pad Per Hole


C
Power/Ground Perimeter Bus with Pad Per Hole


D
3 Hole Solder Pad and Bus

See pg 110 for PCB mounting enclosures and hardware (recommend P/N 106551CF)

Part Number	Product Number	Size (W" x L")	Fits Enclosure(s) (see page 110)	Circuit Pattern	Hole Pads	# Holes x Dia. †	Power/Ground Busses	Connector I/O or Edge	# Mounting Holes x Dia.	Weight (lbs.)	Pricing 1	10	50	100
105099CF	2855PCB	1.60 x 2.70	18921CF	B	Single-sided	288 x .035"	None	None	2 x .115"	.02	**$4.95**	**$4.49**	**$3.95**	**$3.59**
105101CF	5002PCB	1.50 x 3.50	11957CF	C	Single-sided	365 x .038"	4	None	2 x .140"	.02	**6.95**	**6.25**	**5.59**	**4.95**
105128CF	2853PCB	2.00 x 4.40	18913CF, 11965CF	C	Single-sided	669 x .038"	4	None	4 x .140"	.03	**7.95**	**6.95**	**6.25**	**5.59**
105110CF	2300PCB	2.40 x 3.40	11869CF, 11914CF	C	Single-sided	637 x .038"	4	None	2 x .140"	.03	**7.95**	**6.95**	**6.25**	**5.59**
28177CF	PCB1	2.42 x 4.10	18913CF	C	Plated through	674 x .040"	None	None	4 x .120"	.04	**5.95**	**5.35**	**4.79**	**4.29**
105152CF	2851PCB	3.10 x 5.50	18892CF	C	Single-sided	1450 x .035"	7	None	4 x .140"	.07	**9.95**	**8.95**	**7.95**	**6.95**
105136CF	2320PCB	3.30 x 4.50	11885CF	C	Single-sided	1266 x .035"	4	None	4 x .140"	.06	**9.95**	**8.95**	**7.95**	**6.95**
105161CF	2852PCB	3.60 x 7.00	18905CF, 11973CF	B	Single-sided	2225 x .035"	4	None	4 x .140"	.10	**14.95**	**13.45**	**11.95**	**10.95**
206586CF	2746APCB	4.30 x 6.80	209349CF	C	Single-sided	2550 x .042"	5	None	4 x .140"	.07	**9.99**	**8.99**	**8.19**	**7.39**
21434CF	JE401(8001)	4.50 x 6.50	18868CF	B/D	Single-sided	2360 x .042"	2	None	None	.12	**20.95**	**18.95**	**16.95**	**15.49**
21451CF	JE405(8003)	4.50 x 6.50	18868CF	C	Single-sided	2360 x .042"	1	None	None	.12	**19.95**	**17.95**	**15.95**	**13.95**
43140CF	64P44XXXP*	4.50 x 6.50	18868CF	A	Drilled only	2860 x .042"	None	None	None	.09	**6.95**	**6.59**	**6.25**	**5.95**
52943CF	84P44WE	4.50 x 8.50	18876CF	A	Drilled only	3740 x .042"	None	None	None	.15 ~~$11.95~~	**9.19**	**8.99**	**8.89**	**8.79**
37604CF	169P44WE	4.50 x 17.0	N/A	A	Drilled only	7524 x .042"	None	None	None	.31	**16.95**	**16.25**	**15.49**	**14.69**
37612CF	169P44XXXP*	4.50 x 17.0	N/A	A	Drilled only	7524 x .042"	None	None	None	.25	**12.95**	**12.29**	**11.69**	**10.95**
206578CF	2743APCB	4.60 x 4.30	208910CF	C	Single-sided	1684 x .042"	5	None	4 x .140"	.07	**6.99**	**6.29**	**5.69**	**5.19**
105179CF	2505PCB	5.00 x 6.50	11893CF, 18868CF, 11949CF	C	Single-sided	2829 x .035"	7	None	8 x .120"	.13	**14.95**	**13.49**	**11.95**	**10.95**
28193CF	PCB3	5.00 x 8.00	18876CF	C	Plated through	3705 x .042"	4	Mounting area-I/O	4 x .120"	.17	**23.95**	**20.95**	**19.95**	**17.95**
21477CF	JE407(8006)	5.00 x 13.25	N/A	B	Plated through	6063 x .038"	None	None	8 x .120"	.28	**39.95**	**35.29**	**33.49**	**31.85**
206594CF	2747APCB	5.50 x 8.00	209357CF	C	Single-sided	3906 x .042"	5	None	4 x .140"	1.0	**13.99**	**12.59**	**11.29**	**10.19**
105187CF	2507PCB	6.10 x 8.80	18876CF	C	Single-sided	4771 x .035"	7	None	8 x .140"	.21	**29.95**	**26.95**	**23.95**	**21.95**
37621CF	169P84WE	8.50 x 17.0	N/A	A	Drilled only	14448 x .042"	None	None	None	.53	**23.95**	**22.75**	**21.59**	**20.49**

* PCB material: phenolic † All 0.042" diameter hole boards use terminals T44, T49, and T421 (see below)

Wire Wrap and Push-In Terminals

For .042" Diameter Holes

Specifications:

• Material: copper alloy • Prebagged 100 pcs.

34147CF: Push-In Micro-Klip Terminals

• Overall length: .36" • Post size: .032" x .045"

34155CF: Miniwrap Wiring Terminals • Shoulder: .045"

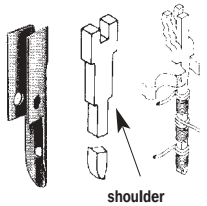
• Two-prong with square tail for wire wrapping

• Overall length: .69" • Post size: .025"Sq.

34163CF: Klipwrap Wiring Terminals • Shoulder: .045"

• Three-prong with square tail for wire wrapping

• Overall length: .83" • Post size: .025"Sq.



34147CF 34155CF 34163CF

Part Number	Mfr. Cross Ref. No.	Height Above .062" Board	Length Below .062" Board	100 pc. units 1	10
34147CF	T421	.200	.097	**$6.95**	**$6.55**
34155CF	T44	.065	.530	**7.99**	**7.49**
34163CF	T49	.200	.530	**10.95**	**10.25**

Copper-Plated Blank Circuit Boards

Ideal for hobbyists and students doing prototypes of circuits. Copper plating on board for either single-sided or double-sided boards.

• 1.6mm thickness


Fig. 1


Fig. 2

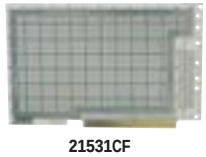

Fig. 3

Part No.	Product No.	Size (L" x W")	Fig.	Wt. (lbs.)	1	10	50
Single Side							
169279CF	PCBS3X6	3.0 x 6.0	3	0.1	**$3.49**	**$3.15**	**$2.85**
169287CF	PCBS6X6	6.0 x 6.0	2	0.2	**4.95**	**4.49**	**3.95**
169295CF	PCBS12X12	12.0 x 12.0	1	0.5	**13.95**	**12.56**	**11.30**
Double Side							
169308CF	PCBD3X6	3.0 x 6.0	3	0.1	**$4.95**	**$4.45**	**$3.95**
169316CF	PCBD6X6	6.0 x 6.0	2	0.2	**7.95**	**7.15**	**6.45**
169324CF	PCBD12X12	12.0 x 12.0	1	0.7	**17.95**	**15.95**	**14.49**

ISA Printed Circuit Prototyping Boards

Printed circuit prototyping boards for virtually any application – including those requiring high component densities and solder or wire wrap connections. All boards are manufactured to precise standards and specifications. All bus and circuit patterns are solder-coated for user convenience.

• Edge contacts: gold


21531CF


28206CF

Part Number	Product Number	Description	Size (Inches) W x L	Terminals (above) T44	T49	T421	I/O Connector (not included)	Circuit Pattern	Hole Pads	# Holes x Dia.	Power/ Ground Bus	# Mounting Holes x Dia.	Weight (lbs.)	Pricing 1	10	25
21531CF	JE417	PC/XT 8-bit	4.2 x 6.50	yes	yes	yes	D-sub 9, 15, 25 & 37	C	Plated through	2126 x .042"	2	8 x .120"	.12	**$22.95**	**$19.55**	**$14.65**
28206CF	PCB4	PC/XT/AT 16-bit	4.25 x 13.13	yes	yes	yes	D-sub 9, 15 & 25	C	Plated through	4890 x .042"	2	4 x .120"	.23	**26.95**	**24.25**	**21.85**

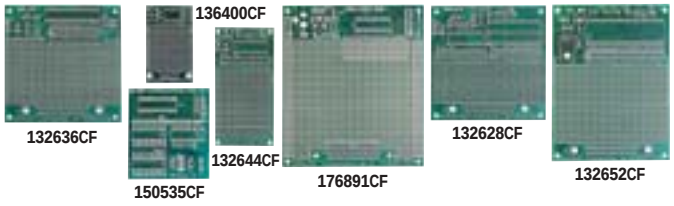
• See page 110 for circuit board mounting hardware • See page 109 for round and hex aluminum spacers & standoffs

Color Code Legend: New Sale Qty Save

microEngineering Labs "PICProto" Prototyping Boards

- High quality blank prototyping boards for PICmicro microcontrollers
- Holds microcontroller, 5V regulator, oscillator, capacitors and DB9-25 connector
- Double-sided board with plated-through holes
- Large prototyping area
- Solder mask on both sides makes soldering easy
- Silkscreen legend

Includes: Documentation sheet with schematic, suggested parts and placement



PICProto 18, 18L: For all 18-pin PICs including PIC16C52, 54, 56, 58, 554, 558, 61, 620, 621, 622, 71, 710, 711, 712, 715, 716, 84, 16CE623, 624, 625, 16F627, 628, 83, and 84

Part No.	Description	Size (L" x W")	1	10
132644CF	PICProto 18	3.0 x 1.5	$9.95	$8.95
176891CF	PICProto 18L	3.6 x 4.1	19.95	17.95

PICProto 3: For the 28-pin PIC16C62, 63, 642, 66, 72, 76, 773, 16F73, 76, 870, 872, 873, 876, 18C242, and 252

132636CF	PICProto 3	3.0 x 3.0	$14.95	$13.49

PICProto 64: For the 40-pin PIC16C64, 65, 662, 67, 74, 77, 774, 16F74, 77, 871, 874, 18C422, and 452

132652CF	PICProto 64	4.0 x 3.0	$16.95	$14.95

PICProto 8: For all 8-pin PIC12Cxxx and 12Cexxx

136400CF	PICProto 8	2.0 x 1.2	$8.95	$7.95

PICProto Dual: For 18-pin PIC16C52, 54, 56, 58, 554, 558, 61, 620, 621, 622, 71, 710, 711, 712, 715, 716, 84, 16CE623, 624, 625, 16F627, 628, 83, & 84, as well as 28-pin PIC16C55, & 57. Accepts standard 0.6" 28-pin device or 0.3" skinny DIP

132628CF	PICProto Dual 18/28	3.0 x 3.0	$14.95	$13.49

PICProto S1: For working with circuits in "Easy Microcontrol'n" and "Microcontrol'n Apps" (pg 224). Holds 18-pin PICmicro, oscillator, 5-volt power supply, DIP switches, & socket to solderless breadboard

150535CF	PICProto S1	2.1 x 1.9	$14.95	$13.49

microEngineering Labs EPIC Plus PICmicro Programmer



The EPIC Plus Programmer quickly and easily programs the PIC12Cxxx, 12CExxx, 16C505, 16C55x, 6xx, 7xx, 84, 9xx, 16CE62x, 16F62X, 7x, 8x, 87x, 14C000, 17C7xx, 18Cxxx microcontrollers from Microchip. The basic programmer includes an 18-pin socket for programming 8, 14 and 18-pin PICmicro MCUs. Devices available separately on page 70.

- Simple installation with parallel port (printer) interface
- Interactive software for Windows and DOS
- Command line operation for automated, non-interactive programming
- PICmicro Assembler software included

Requires: Two 9V batteries or AC adapter (below)

Part No.	Description	1	10
132679CF	EPIC Plus PICmicro programmer	$59.95	$53.95
136397CF	8/18/20-pin ZIF adapter	34.95	31.95
132610CF	40/28-pin ZIF adapter	34.95	31.95
162317CF	AC wall adapter (16VDC/500mA, details on page 56)	7.95	6.95
67256CF	6' DB25 cable (details on page 194)	6.45	5.79

See the yellow and green highlighted items.

Special Jameco Values!

Details on page 3.

microEngineering Labs PICBasic and PICBasic Pro Compiler

PICBasic converts your BASIC programs into files that can be programmed directly into a PICmicro MCU.

- Compatible with most PICmicro MCU programmers including EPIC plus
- Use in DOS or Windows (includes Windows editor/DE software)
- I2C instructions to access external serial EEPROMs
- In-line assembler and call support

132661CF: PICBasic Compiler



132661CF

- Expanded BASIC Stamp I compatible instruction set
- PEEK and POKE instructions to access any register from BASIC
- Serial speeds to 9600 baud
- Supports PC12C67x, PIC14Cxxx, PIC16C55x, 66x, 7xx, 84, 92x, and PIC16CF8xx microcontrollers
- May use up to 2k of code space

150543CF: PICBasic Pro Compiler

- Direct and library routine access to any pin or register
- Automation page boundary handling past 2k
- Bit, byte, word arrays
- Real If…Then…Else…Endif
- Hierarchical expression handling
- Interrupts in BASIC and assembler
- BASIC Stamp I and II library
- Built-in LCD support
- MPLAB/MPASM/ICE compatibility
- Supports 12C5xx, 12C67x, 12CE67x, 14C000, 16C5x, 16C55x, 6xx, 7xx, 84, 92x, 16CE62x, 16F62x, 7x, 8x, 87x, 17Cxxx, and 18Cxxx microcontrollers

Part No.	Description	1	10
132661CF	PICBasic compiler	$99.95	$89.95
150543CF	PICBasic Pro compiler	249.95	224.95

microEngineering Labs LAB-X1 Experimenter's Module Board



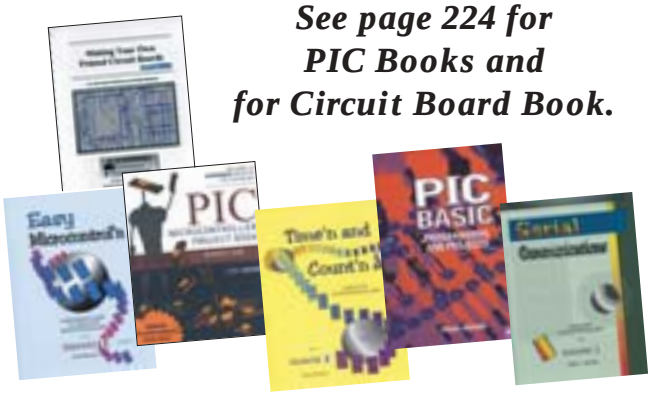
The LAB-X1 is a pre-assembled experimenter's platform. It provides an assembled testbed containing most of the circuitry commonly used with PICmicro microcontrollers (MCUs). Many different projects may be created using the LAB-X1, including calculator, voltmeter, LCD backpack, tone dialer, and RC servo controller.

- 40-pin ZIF socket for PICmicro MCU (not included, PIC16F877-20/P recommended)
- Jumper selectable oscillator from 4MHz to 20MHz
- Reset button
- 16 switch keypad
- 3 potentiometers
- LED bargraph
- 2 lines x 20 characters LCD module
- Speaker
- 2 RC servo connectors
- RS232 interface
- Socket for RS485 interface (device not included)
- Socket for I2C & SPI serial EEPROM (device not included)
- One-year warranty
- Socket for Microwire serial EEPROM (device not included)
- Socket for real time clock/serial analog to digital converter (devices not included)
- EPIC in-circuit programming connector
- Prototyping area for additional circuit
- Wiring for microchip in-circuit debug connector
- Size: 5.5" x 5.6"

Requires: AC adapter (below)

Part No.	Description	1	10
169113CF	LAB-X1 Experimenter Board	$199.95	$189.95
176903CF	LAB-X1 Experimenter Board Kit	149.95	139.95
198168CF	LAB-X2 for 28 and 40-pin MCUs	~~$69.95~~ 64.95	58.49
198176CF	LAB-X3 for 18-pin MCUs	119.95	107.95
176882CF	PIC16F877-20/P microcontroller (pg 70)	9.49	8.49
127976CF	AC adapter (details on page 55)	4.75	4.25

See page 224 for PIC Books and for Circuit Board Book.



Electro Design

Wire Jumper Kit (350 pcs.)



- 25 each of lengths 0.1" through 5.0" (14 sizes)
- 350 assorted lengths in 13 colors
- Pre-stripped/preformed 22 AWG solid wire jumpers

19289CF

19289CF: 350-piece wire jumper kit
- Handy, durable, clear plastic case

20079CF: 350-piece refill for 19289CF
- Case not included

Part No.	Description	1	10	50	100
19289CF	Wire jumper kit	$15.95	$14.39	$12.95	$11.65
20079CF	Refill for 19289CF	9.99	8.99	7.99	7.25

Reinforced Jumper Wires



- 24 AWG-300 volts
- Reinforced pin ends for durability
- 10 pack assortment: 2 each yellow, white, red, black & blue

126341CF

Part Number	Mfr. Cross Ref. No.	Length (mm / inch)	1	10	100
126359CF	JW50	50 / 1.97	$3.95	$3.49	$2.95
126341CF	JW100	100 / 3.94	4.95	4.49	4.05
126324CF	JW200	200 / 7.87	5.19	4.69	4.25

Resistance and Capacitance Decade Substitution Boxes

Wide-range decade substitution boxes for product design or calibration checks.



- Light durable construction
- Case may be grounded separately
- Three binding posts permit isolated substitutions
- Size: 4.7"W x 5.7"H x 1.4"D
- Weight: 0.7 lbs.

EXTECH INSTRUMENTS

211668CF

211668CF:
- 1% resistance substitution from 1Ω to 11.111110MΩ
- 7 decade ranges of resistance
- Values can be changed in 1Ω increments



211676CF:
- 5% capacitance substitution from 100pF to 11,111µF
- 5 decade ranges of capacitance

211676CF

Part No.	Description	1	10
211668CF	Resistance	$98.95	$93.95
211676CF	Capacitance	128.95	122.45

AC/DC Power Supply

Ideal for Breadboards on page 112



International 120 / 220VAC Switchable

Output Specifications:
+5VDC @ 1A;
-5V @ 300mA fixed;
0 to +15VDC @ 500mA variable,
0 to - 15VDC @ 300mA variable;
12-6-0-6-12 tapped VAC, 300mA fixed

With built-in short-proof regulated power supplies.
- Input power: 120/220VAC @ 50-60Hz (switchable)
- Indicator lamps and power fuses
- Just plug-in and start to use • Compact & lightweight
- For both digital and analog circuits
- Compatible with test leads P/N 77841CF, pg 159
- Size: 7.4"W x 5.5"D x 2.6"H • Color: beige
- Weight: 5.5 lbs. • One-year warranty

Part No.	Description	1	10	25
77681CF	Power supply	$119.95	$109.95	$99.95

Digital/Analog Design Labs

- **Two 7-Segment Displays (digit height: 0.3")**
- One-year warranty

Solderless Breadboard
- Interconnected nickel-plated tie points, fitting all DIP sizes and all components with AWG #22-30 (0.3-0.8mm) solid leads

DC Power Supplies
- DC supplies equipped with short circuit protection
- Variable DC power: 0 to +15V & 0 to -15V @ 0.5A

Function Generator (5 ranges)
- Frequency range: 1Hz–10Hz, 10Hz–100Hz, 100Hz–1kHz, 1kHz–10kHz, 10kHz–100kHz
- Sine wave output: 0–8 Vp-p variable • Triangle wave output: 6Vp-p fixed • Square wave output: ±5V fixed

Our most popular digital lab!



75838CF

International 115 / 220VAC Switchable



201890CF

Part No.	Tie Points	Fixed Power Supply	Pulse Generator	Frequency Counter	Multimeter	Includes
75838CF	1580	±5VDC @ 1.0A	No	No	DCV (Digital)	Power cord, manual
201890CF	2960	±5VDC @ 0.5A	1Hz to 1MHz switchable	Yes	ACV, DCV, DCmA, resistance (analog)	Power cord, enclosed case, test lead, jumper wire kit, DB25 serial adapter, manual

Part No.	Description	Size (W" x D" x H")	Weight (lbs.)	1	10	25
75838CF	Digital lab	10.6 x 13.3 x 5.0	8.1	$276.95	$249.95	$226.95
201890CF	Digital/analog lab	13.9 x 12.8 x 4.9 (back panel)	11.8	429.95	389.95	349.95

Digital-Analog Design Lab

Solderless Breadboard
- 2712 interconnected nickel-plated tie points, fitting all DIP sizes and all components with AWG #22-30 (0.3-0.8mm) solid leads

DC Power Supplies
- Variable DC output: 0 to +15V & 0 to -15V @ 500mA
  Fixed DC output: +5VDC, 1A; -5VDC, 300mA
- Input power: 120/220VAC @ 50-60Hz (switchable)



International 120 / 220VAC Switchable

Function Generator • Frequency ranges: 1Hz–10Hz, 10Hz–100Hz, 100Hz–1kHz, 1kHz–10kHz, 10kHz–100kHz
• Sine wave output: 0–8 Vpp variable • Triangle wave output: 0–6 Vpp variable • Square wave output: 0–8 Vpp variable

Other features:
- 2 variable resistors: VR1=1kΩ, VR2=100kΩ • 8 data switches • 2.5" dia. 8Ω, 25W speaker
- 2 pulse switches (2 sets of outputs: $\bar{A}$, A, $\bar{B}$, B) • 2 banana sockets, 2 BNC jacks • One-year warranty
- Two 7-segment LED displays (digit height: 0.3") • 8 red LEDs with separate input terminals

Includes: Power cord and manual

Part No.	Description	Size (W" x D" x H")	Weight (lbs.)	1	10	25
136266CF	Digital-analog lab	12.8 x 9.8 x 3.7	8.5	$379.95	$341.99	$307.79

Powered Project Board



International 120 / 220VAC Switchable

- Solderless breadboard with 2420 tie points
- DC power supplies: +5V @ 1A; variable power 0 to +15VDC and 0 to -15VDC @ 500mA
- Back panel has ground terminal
- Outputs are short-circuit protected
- Edge plate for non-DIP size components
- Input power: 120/220VAC @ 50-60Hz (switchable)
- Replacement fuse: P/N 103907CF, pg 85
- Power switch with light
- Breadboard size: 7.4"L x 6.8"W
- Enclosure size: 9.8"L x 8.0"W x 2.6"H
- Weight: 6.8 lbs. • One-year warranty

CE

Includes: Power cord

Part No.	Description	1	10	25
136258CF	Powered breadboard	$99.95	$89.95	$87.95

See page 82 for surface mount protoboards that plug into standard solderless breadboards.

XELTEK 40-Pin Low-Cost Universal Programmer

NEW!



For Adapters see page 233

- SuperPro-Z features a 40-pin universal ZIF socket that accepts any number of pins
- High-speed programming, cost-effective hardware and flexible software
- Supports 2500+ devices, including most E(E)PROM, Series E(E)PROM and FLASH
- Programs GALs, PEELs, PALCE, Microcontrollers, PIC16Cxx/17Cxx, COP87xx, and PSD3XX
- Tests TTL/CMOS Test, Memory Test, Vector Test, Test Pattern Edit, Auto Identify TTL/CMOS Device
- Load and save file in binary, Intel (extended) Hex, Motorola S or Tektronics (extended) Hex format. Multiple load, format conversion, relocation, etc.
- Blank Check, Read, Program, Verify, Security, Fuse, Erase, Word format select and functions related to specific device
- HEX-ASCII Edit, Fuse Map Edit, Checksum, Swap, Vector Table edit • Printer Port Interface
- Mouse support with user-friendly menu-driven software interface • Supports Windows® 95/98/ME
- Size: 7.8"L x 5.5"W x 0.8"H • Weight: 4.0 lbs.

Includes: Power adapter, parallel cable, user's guide, and CD-ROM software

Part No.	Description	1	5
231183CF	SuperPro-Z Universal Prog.	$244.95	$232.69

Electro Design

Color Code Legend: New | Sale | Buy Save | Closeout

High-Speed Universal Device Programmer/Tester

Parallel Port Interface



- 48-pin universal ZIF socket accepts any number of pins
- Programs Flash memory, PROM, EPROM, EEPROM, Serial (E)EPROM, Bipolar PROM, PAL, PALCE, GAL, NVRAM, PEEL, EPLD, SPLD, CPLD, PIC & Microcontrollers
- 5000+ device types supported
- On-board FPGA for speed; 4 times faster than offshore brands
- Supports real 5.0V; 3.3V, 2.7V, 2.0V & 1.8V devices
- Hardware diagnostic program examines all 48-pin drivers
- Tests TTL, CMOS, DRAM and Static RAM ICs
- Supports POF and JEDEC formats
- Detects pin locations for poor or damaged contacts
- Current limiting protects hardware circuits from improperly inserted or defective chips
- High-speed device function tests and user creatable test library • CE/CUL/CSA quality certified
- Read, blank check, program, verify, checksum, data compare, security, auto (erase, blank check, program, verify), and option bit program function
- Built-in editor for both buffer date and test vectors

Includes: Parallel cable, installation diskette, power cord and manual

System Requirements: IBM PC, XT, AT, 386, 486, Pentium®, hard drive, 512k RAM, Windows® 95/98/2000/NT, and parallel port

Part No.	Description	1	5
207765CF	TOPMAX ..... ~~$999.95~~	$875.95	$832.95

Versatile, Production Quality Universal Programmers

Parallel Port Interface



207781CF

- **207773CF:** 48-pin ZIF socket
- **207781CF:** One 48-pin and three 32-pin ZIF sockets
- 3000+ device types supported
- Supports EPROM, flash, microcontroller, Serial (E)EPROM, EPLD, PALCE, GAL, PEEL
- Auto search device select function
- Fast programming speed with IC vendor approved algorithms
- Built-in editor for both buffer date and test vectors
- Supports JEDEC, Intel Hex, Motorola S Records, Binary and ASCII file formats with File LOAD/SAVE command
- Built-in macro commands for programming

Includes: 01/02/03 personality modules, parallel cable, wall adapter, diskette and manual

System requirements: IBM PC, XT, AT, 386, 486, Pentium®, hard disk, 512k RAM, standard parallel port, MS-DOS 2.11 or higher

Part No.	Description	1	5
207773CF	MEGAMAX prog. ..... ~~$399.95~~	$375.95	$355.95
207781CF	MEGAMAX4G programmer	449.95	426.95

30-Day Money-Back Guarantee

If you're not satisfied, we'll take it back!

Details on page 226.

Fast, Low-Cost Universal Device Programmer

Parallel Port Interface



- 40-pin ZIF socket
- Programs (E)EPROM, PROM, Serial PROM, PALCE, GAL, flash memory, microcontrollers, ATF
- 2000+ device types supported
- Menu driven software
- On-board FPGA for speed; 4 times faster than offshore brands
- Auto search device select function supports (E)EPROM & microcontrollers
- Device insertion test identifies improperly inserted device before programming
- Auto programming for production programming
- Read, blank check, program, verify, checksum, data compare, security, auto function

Includes: Parallel cable, wall adapter, diskette & manual

System Requirements: IBM PC, XT, AT, 386, 486, Pentium® or compatibles, DOS 2.11 or greater, Windows® 95/98/2000/NT/XP; hard disk, 512k RAM and standard parallel port

Part No.	Description	1	5
207731CF	CHIPMAX	$349.95	$332.95

1MB EPROM Programmer

Serial Port Interface



- ZIF socket
- Motorola s1f, s2f and s3f can convert to binary or ASCII prior to download
- Baud rate configurable
- Data bits: 8 • Start/Stop bits: 1
- Parity: none, even, odd, default none
- Flow control: none, RTS/CTS, XON/XOFF, Default RTS/CTS • Selectable VPP from 5V-25V
- Programs EPROMs up to 512kbits & the Intel 27CO11 (1Mbits); 2716-27512; 2804-8256; also 27CXXX and 28CXXX series
- Max. pins: 28 • One-year warranty

Part No.	Description	1	10
82384CF	1Mbits EPROM prog. ~~$209.95~~	$179.95	$161.99

Universal Programmer Pocket Size and Battery Powered

Parallel Port Interface



A unique ASIC pin driver was designed specifically for this latest generation programmer, enabling the first true universal input/output capability. Along with basic functions the software permits setting specially designated functions for any selected device.

- Supports 5200+ devices: 8-bit and 16-bit EPROM, EEPROM, FLASH EPROM, Serial EEPROMS, all Microcontrollers, GAL/PAL/CE without adaptors
- Support for ultra-low voltage devices down to 1.3V
- High speed ata transfer: 27C256 read/verify = 2 seconds; program = 8 seconds
- Three separately adjustable voltages for all 40-pins
- Fully compatible with Windows® 95/98/ME/NT/2000/XP • Size: 4.5"L x 3.1"W x 1.3"H
- Integrated editor's many features allow user to edit device data, which can be loaded or saved in INTEL HEX, Motorola S or binary format • Wt.: 2.0 lbs.
- Operates on AC power adapter or 6 NiMH batteries

Includes: Printer port data cable, power adapter & CD

System requirements: PC with Pentium® CPU

Part No.	Description	1	5
226309CF	GALEP-4	$369.95	$351.49

16kB-256MB Universal IC Programmer/Tester

Parallel Port Interface

HI-LO SYSTEMS



Supports over 7,000 devices including EPROM, EEPROM, Serial PROM, FLASH, PLD/ CPLD/ FPGA, MPU/MCU and much more. Most devices in various package types can be programmed with the on-board 40-pin ZIF socket or through an appropriate adapter/converter. Modular pin drivers program at high speed and provide high reliability and expansion capability.

- Functions of load file, read master, program, verify, auto, ID check, checksum, blank check, erase, secure, protect/unprotect, edit, file transfer, function configuration and self test

Includes: External power supply, DB25 M/F cable, manual and software drivers on CD-ROM

System Requirements: Intel Pentium, 32MB of RAM, parallel port, Windows® 95/98/NT/2000/XP, 5MB free hard disk space, CD-ROM drive



206922CF: UV opaque EPROM window labels (168 per pack)

Part No.	Description	1	10
216039CF	ALL-11C2 programmer	$899.95	$799.95
206922CF	1.1" x .046" window label	6.95	5.95

EPROM Erasers and Accessories

66042CF:



66042CF

- Erases 1 chip in 7 minutes
- Conductive foam liner eliminates static build-up
- UV intensity: 6.5mW/cm²
- Size: 6.8"L x 1.5"W x 2.3"H
- Weight: 0.8 lbs. • One-year warranty

Requires: Four AA batteries (not included), recommend P/N 32627CF (below)

15712CF:



15712CF

- Erases 1 chip in 15 minutes or 8 chips in 21 minutes
- UV intensity: 6.8mW/cm²
- Maintains constant exposure distance of 1"
- Conductive foam liner eliminates static build-up
- Built-in safety lock to prevent UV exposure
- Complete with holding tray for 8 chips
- Size: 9.0"L x 3.7"W x 2.6"H • Weight: 2.3 lbs.

Part No.	Description	1	10	25
66042CF	Portable eraser	$64.95	$58.95	$52.95
15712CF	8-chip eraser ~~$129.95~~	109.95	104.95	99.95
34382CF	Lamp for 15712	34.95	34.95	34.95
13864CF	Foam (12"x24"x0.25")	7.95	6.95	6.15
32627CF	"AA" Ni-Cad battery....	1.95	1.75	1.49

HI-LO SYSTEMS EPROM Eraser



- Erases all UV erasable EPROMs
- Holds a total of 16 EPROMs 32-pin
- Upper and lower erasing chambers
- Conductive foam liner eliminates static build-up
- One-year warranty
- Size: 8.5"L x 2.8"W x 2.8"H • Weight: 1.6 lbs.

Includes: AC adapter – 9VDC @ 600mA and a timer which turns eraser off at the end of the selected time period – 10 to 60 minutes

Part No.	Description	1	10
121267CF	EPROM eraser	$149.95	$134.95

Universal EPROM/Flash Programmer with USB Interface



- Supports low voltage components up to 2.5V; user selectable verify Vcc with one or two-pass verify voltage
- High speed: 30 sec. to process 16Mbits memory
- Simple operating software: the programming procedure has only a few automatic process functions
- Auto detect device pin insertion and contact check
- Select device brand & number by prompt & convenient cross search, FLASH memory auto detection
- Supports EPROMs, EEPROMs, FLASH EPROMs, Serial E/EPROMs, NV RAMs, Microcontrollers, DSPs & PLDs
- Supports file formats JEDEC, binary, Intel 80/86 HEX, Motorola HEX, Tektronic HEX

Includes: USB cable, 12V@1.5A power adapter and CD-ROM software

System requirements: Pentium® II or higher, 32MB RAM minimum, 30MB hard disk space, Windows® 98/ME/2000 operating system

Part No.	Description	1	10
225939CF	Leaper 48	$599.95	$569.95

MCS-51 Programmer with USB Interface



- Programs 8-bit MCS-51 serial ICs via USB cable on Windows® 9x/2000/XP
- High-speed, high performance programming: ATMEL AT89S52 takes 4 seconds to erase, blank check, program, and verify
- Type, read, load, edit, checksum, erase, blank check, program, verify, protect functions
- Supports file formats binary and machine code, Intel HEX, Motorola HEX, Tektronix
- Supports ATMEL; Hyundai; Intel 87C; ISSI, Philips, SST, TEMIC, and Winbond ICs

Includes: USB cable, 12V @ 500mA power adapter, CD-ROM software and manual

System requirements: Pentium III 500 or higher, Windows® 98/2000/XP, 20MB hard disk space, USB port

Part No.	Product No.	1	10
225921CF	Leaper 5E	$249.95	$236.95

Flash Writer/Programmer with USB Interface



- Programs 8-bit FLASH serial ICs via USB cable on Windows® 9x/2000/XP
- High speed: Only 22 seconds to blank check, program, and verify MXIC MX29F040
- File formats supported: binary and machine code, Intel HEX, Motorola HEX, Tektronix
- Type, read, load, edit, checksum, erase, blank check, program, verify, protect functions
- Supports Flash EPROM, EPROM and EEPROM

Includes: USB cable, 12V @ 500mA adapter, CD-ROM software and manual

Part No.	Description	1	10
225947CF	Leaper 3D	$219.95	$208.95

For More New XELTEK Programmers see page 233

512k E(E)PROM / Flash Programmer USB Interface

Compact, portable, and lightweight stand-alone E(E)PROM flash programmer. Also interfaces with your PC through the USB port.



- Programs EPROMs 27C/LV (64 – 080); EEPROMs 28C(256-040); Flash EPROMs 29C (256-040) / 29EE/LE (512-020)/28F(256-020A)/ 29F(010-040) and more
- 2 sockets for master/slave operation

FUNCTIONS		
Stand Alone Mode:		
- Functions	- Blank check	
- Type	- Program	- Verify
PC-Based Mode:		
- Type	- Read	- Blank
- Check	- Program	
- Verify	- Erase	- Disk
- Help	- Process	- Parameter

- Stand-alone mode uses two 9V batteries
- IC parameters are adjustable such as programming algorithm, Vpp voltage, and pulse width
- Supports file formats binary and machine code, INTEL HEX, Motorola HEX
- Supports Windows® 95/98/NT/2000/ME/XP
- Size: 6.3"L x 4.3"W x 1.8"H

Includes: USB cable, 12VDC @ 500mA power adapter; and CD-ROM

Part No.	Description	1	5
220636CF	Leaper-3C	$299.95	$284.95

Ultra-Fast 48-Pin USB & Stand-Alone Universal Programmer



- SuperPro-3000 provides the fastest low-cost programmer in the market; programs high-density FLASH memory at near theoretical minimum programming time: (Intel 28F320W18 – 1.8volts 32Mbit at 18 seconds; 13 seconds for programming and 5 seconds for verifying
- Standard universal 48 pin-drivers support devices down to 1.5 volts; optional 100-pin expander module
- Currently 4,000 devices supported from 100+ manufacturers including memory, MCU, and PLD; 11,000+ by 1/1/2004
- Devices supported: EPROM, Paged EPROM, Parallel and Serial EEPROM, FPGA Configuration Serial PROM, FLASH Memory (NOR and NAND), BPROM, NOVRAM, SPLD, CPLD, EPLD, Firmware HUB, Microcontroller, MCU, Standard Logic.
- Advanced hardware design minimizes ground bounce noise enabling reliable programming of low voltage devices down to 1.5 volts
- Three modes of operation are supported: standard PC hosted operation via USB, stand-alone operation for manufacturing or service and built-in terminal mode to operate via an external instrument
- Pin continuity and wrong chip insertion check prevents accidental chip damage.
- Over-current and over-voltage protection for safety of the chip and programmer hardware.
- Batch command combines device operation like program, verify, security into a single command at any sequence.
- Windows® 98/ME/NT/2000/XP compatible
- Size: 9.4"L x 5.9"W x 2.0"H • Weight: 5.0 lbs.

Includes: 12VC@2.5A AC adapter, Program CD, USB Cable & User's Guide

Part No.	Description	1	5
231221CF	SuperPro-3000 USB Prog.	$989.95	$940.45

For Adapters see page 233

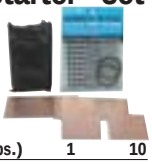
DATAK Photo Etch™ Printed Circuit Kit



Generate your own 1:1 artwork. Then use the patented Fast Neg film process to make a photo negative and sensitize and expose a blank copper board. Finish by developing & etching. No camera or darkroom is required.

Part No.	Product No.	Wt. (lbs.)	1	10
16731CF	12-750*	4.6	$39.95	$36.95

DATAK Direct Etch PCB "Starter" Set



Includes: 4 blank circuit boards, dry concentrated ferric chloride etchant, instructions, 8 sheets of direct etch donuts, DIP, patterns, lines and 1/32" & 1/16" etch resist tape.

Part No.	Prod. No.	Description	Wt. (lbs.)	1	10
70412CF	ER1	PCB kit	0.7	$11.95	$10.95

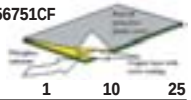
DATAK Dry Concentrated Etchant



- Makes one pint of etch solution

Part No.	Prod. No.	Description	1	10	25
70201CF	ER3	Dry etchant	$3.95	$3.49	$2.95

DATAK Pre-Sensitized Circuit Boards & Developer



- Pre-coated circuit board 156751CF
- Size: 3.0"L x 4.0"W x 1/16"T

Includes: Instructions

Part No.	Description	1	10	25
156751CF	Single sided	$4.95	$4.49	$3.95
156742CF	Double sided	6.49	5.85	5.25
156734CF	4 oz. Pos. developer*	6.95	5.95	4.95

Acid Brush



- Used for application of reactive solvents

Part No.	Description	1	10	100	1000
153322CF	Metal handle, 6"	$.59	$.49	$.36	$.25

Workshop Chemicals

- Safe on plastics
- EPA SNAP approved, no CFCs or HCFCs
- 10 oz. aerosol can



139900CF 139934CF 118033CF

Envi•Ro•Tech™ Duster

Part No.	Description	Wt. (lbs.)	1	12
139900CF	10 oz. aerosol w/ trigger*	0.8	$7.99	$6.99

Envi•Ro•Tech™ Freezer

Rapidly evaporating liquid that can chill to -62˚F.

Part No.	Description	Wt. (lbs.)	1	12
139934CF	10 oz. aerosol can*	0.8	$8.99	$7.99

ECOLINE Flux Remover

- Dissolves R, RMA, RA, SA & most no-clean fluxes

Part No.	Description	Wt. (lbs.)	1	12
118041CF	10 oz. Flux remover*	0.8	$9.95	$8.95

ECOLINE Contact Cleaner

- Ideal for switches, relays & other places on electrical connections • Will not damage switch housings

Part No.	Description	Wt. (lbs.)	1	12
118033CF	10 oz. Contact cleaner*	0.9	$8.95	$7.95

*Shipped via UPS ground to continental U.S. only

Buzzers and Sonic Transducers

Magnetic Transducers

• Applied voltage: 1/2 duty, square wave

Part Number	Fig.	Operating Volt. (Vp-p/mA)	Voltage Range (Vp-p)	Frequency (Hz)	Sound (dB)	Dimensions	Pricing 1	10	100	1000
138721CF	1	1.5/10	1 – 2	2048	80	.32"H x .46"Dia.	$1.49	$1.29	$.99	$.89
207917CF	2	1.5/30	1 – 2	2048	75	.22"H x .47"Dia.	1.09	.87	.65	.46
207925CF	3	1.5/70	1 – 2	2048	80	.50"L x .50"W x .30"H	~~$1.09~~ .99	.89	.80	.72
207941CF	4	1.5/80	1 – 2	2731	80	.28"H x .38"Dia.	~~$1.09~~ .99	.89	.80	.72
207968CF	5	1.5/80	1 – 2	2731	80	.22"H x .35"Dia.	1.20	1.05	.93	.75
207909CF	2	3.6/40	1 – 4	1980	70	.22"H x .47"Dia.	.99	.84	.69	.59
138739CF	1	5/40	3 – 8	2400	85	.35"H x .46"Dia.	1.49	1.29	.99	.89
106500CF	1	5/40	3 – 8	2400	85	.40"H x .48"Dia.	1.49	1.29	.99	.79
207933CF	4	5/100	4 – 8	3100	85	.28"H x .38"Dia.	1.09	.89	.75	.69
207950CF	5	5/100	4 – 8	3100	85	.22"H x .35"Dia.	1.35	1.15	.99	.89

Magnetic Buzzers

Part Number	Fig.	Operating Volt. (VDC/mA)	Voltage Range (VDC)	Frequency (Hz)	Sound (dB)	Dimensions	Pricing 1	10	100	1000
207984CF	6	1.5/30	1.25 – 2	2300	75	.47"H x .38"Dia.	$2.99	$2.69	$2.45	$2.15
76064CF	6	5/30	4 – 7	2300	85	.35"H x .46"Dia.	2.99	2.69	2.45	2.19
207976CF	6	12/30	8 – 15	2300	85	.47"H x .38"Dia.	2.49	2.19	1.99	1.69

Piezo Buzzers

Part Number	Fig.	Operating Volt. (VDC/mA)	Voltage Range (VDC)	Frequency (Hz)	Sound (dB)	Dimensions	Pricing 1	10	100	1000
206295CF	6	12/6	3 – 20	2900	95	.63"H x .92"Dia.	$2.49	$2.25	$1.95	$1.75
196357CF	6	12/5.8	3 – 16	4000	86	.30"H x .54"Dia.	2.69	2.45	2.19	1.95
138712CF	6	12/7	3 – 16	4000	80	.30"H x .54"Dia.	2.49	2.25	1.79	1.35
207896CF	7	12/120	6 – 15	2800	105	3.4"L x 2.2"W x 1.3"H	~~$8.95~~ 7.95	7.19	6.45	5.85
207888CF	7*	12/120	9 – 15	3100	105	3.4"L x 2.2"W x 1.3"H	7.95	7.19	6.45	5.85
207992CF	8	12/250	6 – 16	3500	105	2.3"L x 1.8"W x 1.6"H	~~$7.95~~ 6.95	6.29	5.65	5.09
32601CF	9	24/15	1 – 28	2900	95	1.4"H x 1.7"Dia.	4.95	4.45	3.95	3.59
123537CF	9*	24/20	4 – 28	2900	80	1.4"H x 1.7"Dia.	4.19	3.79	3.39	2.95
76021CF	10	24/20	1.5 – 28	3200	95	1.0"H x 1.1"Dia.	4.99	4.49	3.99	3.49

* P/N dual tone

Mechanical/ElectroMechanical Buzzers

Part Number	Fig.	Operating Volt. (VDC/mA)	Voltage Range (VDC)	Frequency (Hz)	Sound (dB)	Dimensions	Pricing 1	10	100	1000
24871CF	11	9/30	6 – 12	400	75	1.3"L x 0.7"W x 0.6"H	$2.49	$1.99	$1.79	$1.79
105822CF	12	9/220	—	500	80	1.3"H x 2.0"Dia.	~~$1.69~~ 1.39	1.25	1.15	.91
140695CF	11	12/25	9 – 15	400	75	1.3"L x 0.7"W x 0.6"H	1.79	1.59	1.49	1.29


Fig.1 Fig.2 Fig.3


Fig.4 Fig.5 Fig.6


Fig.7 Fig.8 Fig.9


Fig.10 Fig.11 Fig.12

110VAC Piezo Buzzer

- Sound pressure level: 90dB
- Output tone: pulse • 6" lead wires
- Operating range: 60-150VAC
- Current drain: 20mA
- Fits 1.125" diameter opening
- Size: 1.3"H x 1.7"Dia.

Includes: Mounting nut



Part No.	Product No.	1	10	100
184743CF	FM-110A-903AL	$3.19	$2.99	$2.69

Audio

Microphones and Microphone Cartridges

VHF High-Band Wireless Microphones

The perfect microphone for use with portable PA systems, video recording, and stage use. There is no cord to restrict your movements while providing clear crisp sound.

- T.H.D. (total harmonic distortion): less than 0.5% for crystal-clear sound
- Frequency stability: ±0.005% with Quartz controlled
- Maximum deviation range: ±15kHz with limiting compressor • Transmission range: 300m
- Carrier frequency range: 100Hz to 15kHz • S/N ratio: over 180dB @ 15kHz deviation


198248CF 198221CF

SALE

Includes: 0.25" mono jack patch cable, 9V battery and power supply

Part No.	Mfr. Cross Ref. No.	Description	Wt. (lbs.)	1	5
198248CF	WR101R	Handheld wireless microphone	2.1	~~$119.95~~ $95.19	$86.55
198221CF	WR202H	Wireless microphone with clip-on headset	2.3	~~$119.95~~ 89.69	81.59

Opening an account is easy!! Call 1-800-831-4242 for details today.



Corporate Customers

Omni-directional Electret Condenser Microphone Cartridges

Applications:

- Tape recorders, intercoms, hearing aids, telephone and answering devices, sonic controlled toys and sensors
- Modems for computers
- Used for recording, testing, and monitoring


189958CF/136573CF 116505CF 160979CF 196488CF 140986CF

Part No.	Type	Sensitivity	Impedance	Frequency (Hz)	Max. Op. Volt. (VDC)	Stand Op. Volt. (VDC)	Current (Max.)	Sensitivity Reduction	S/N Ratio	Terminals	Size (H x Dia.)	Pricing 1	10	100	1000
116505CF	WM-54PC	-44 ±2dB	>2.2kΩ	20-16,000	10V	2.5V	0.6mA	-3dB @ 2V	>60dB	PC pin leads	.20" x .38"	$.69	$.62	$.50	$.33
160979CF	WM-64PKT	-44 ±3dB	>2.2kΩ	20-16,000	10V	2.0V	0.5mA	-3dB @ 1.5V	>58dB	PC pin leads	.10" x .24"	.72	.65	.52	.35
136573CF	WM-60PC	-54 ±2dB	>2.2kΩ	20-12,000	12V	4.5V	0.5mA	-3dB @ 3V	>40dB	PC pin leads	.30" x .38"	.53	.48	.43	.39
196488CF	JL-061C	-58 0dB	2kΩ	20-20,000	10V	2.0V	0.04mA	-3dB @ 1.5V	>55dB	Solder pad	.10" x .24"	1.29	.99	.89	.79
140986CF	CRM919	-64 ±3dB	1kΩ ±30%	20-10,000	12V	3.0V	0.8mA	-3dB @ 3V	>40dB	Lead wires	.90" x .39"	1.49	1.14	1.05	.89

Full-Range Replacement Speakers

These full-range speakers are perfect replacements for TVs, stereos, and computer systems.

- Full-range coaxial speakers provide extended frequency response and can handle higher-powered amplifiers
- Dual-cone speakers provide richer bass tones and crisper high tones
- Two-way speakers provide extended frequency response with both a tweeter and woofer
- Impedance: 8Ω

196402CF: shielded magnet prevents signal distortion of TVs, monitors, and CTRs.

Part No.	Mfr. Cross Ref. No.	Size	Type	Shape	Freq. Range	Magnet Wt. (oz.)	RMS Watts	Pricing 1	Pricing 10
196402CF	480P039-1	4"	Full range shielded	square	120 – 10kHz	6	10	$6.49	$5.85
197042CF	5030	5"	Full range	square	135 – 15kHz	3	5 ~~$7.95~~	3.25	2.95
197077CF	6030W	6"	Full range dual cone	round	70 – 15kHz	3	8 ~~$10.95~~	4.89	4.45


196402CF


197042CF


197077CF

Round Ferrite Speakers

- Pre-tinned speaker lugs • Large magnet • Anodized metal surfaces • Braided copper voice coil leads • Paper diaphragm

For speaker wire, see page 125

Part Number	Mfr. Cross Ref. No.	Dimensions (Dia." x D")	Input Nom (W)	Input Max (W)	Impedance (Ω)	Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia." x H")	Pricing 1	Pricing 10	Pricing 100
135589CF	FE200	2.0 x 0.7	0.2	0.4	8	83	420 – 5000	1.3 x 0.4	$1.59	$1.33	$1.09
10840CF	FE201	2.2 x 0.7	0.2	0.4	8	88	400 – 4500	1.3 x 0.4	1.59	1.33	.99
177130CF	57RF07	2.2 x 0.8	0.5	0.9	45	88	500 – 8000	1.6 x 0.5	.54	.49	.43
135714CF	FE202	2.6 x 0.8	0.3	0.5	8	88	340 – 4000	1.3 x 0.4	~~$1.95~~ .65	.56	.50


135589CF side


135589CF back

Square Ferrite Speakers

- Pre-tinned speaker lugs • Large magnet • Anodized metal surfaces • Braided copper voice coil leads • Paper diaphragm

Part Number	Mfr. Cross Ref. No.	Dimensions (Dia." x D")	Input Nom (W)	Input Max (W)	Impedance (Ω)	Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia." x H")	Pricing 1	Pricing 10	Pricing 100
135693CF	FEB200	2.0 x 0.7	0.2	0.3	8	82	500 – 6000	1.3 x 0.5	$1.59	$1.45	$1.29
31958CF	FEB216	2.6 x 0.8	0.2	0.4	16	85	330 – 8000	1.3 x 0.5	2.25	1.99	1.79
99995CF	FEB204	2.6 x 0.9	3.0	4.0	4	95	300 – 14000	1.8 x 0.5	2.49	2.25	1.99


99995CF side


99995CF back

Flat-Magnet, Square Piezo Speakers

- Excellent for alarms or other voice uses • Stainless steel diaphragm

Part Number	Mfr. Cross Ref. No.	Dimensions (Dia." x D")	Input Nom (W)	Input Max (W)	Impedance (Ω)	Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia." x H")	Pricing 1	Pricing 10	Pricing 100
34024CF	AZ30S	1.2 x 0.2	0.4	0.8	8	70	1300 – 8000	1.2 x 0.1	$1.69	$1.52	$1.35
76030CF	AZ40S	1.6 x 0.2	0.4	0.8	8	70	600 – 6000	1.6 x 0.1	1.95	1.75	1.49

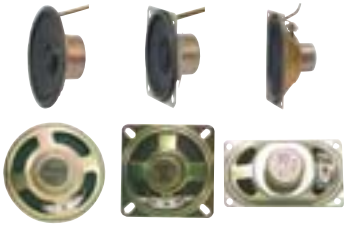

34024CF side


34024CF back

Alnico Speakers

- For computer case use
- Pre-tinned solder lugs
- Paper diaphragm
- Large magnet
- Wide frequency response
- Impedance: 8Ω

Part Number	Mfr. Cross Ref. No.	Fig.	Dimensions (Dia." x D")	Input Nom (W)	Input Max (W)	Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia." x H")	Pricing 1	Pricing 10	Pricing 100
88410CF	A0200	1	2.0 x 0.8	0.2	0.4	87	430 – 4500	0.5 x 0.4	~~$1.99~~ $1.49	$1.29	$1.19
135765CF	A0201C	1	2.2 x 0.8	0.3	0.5	87	400 – 4000	0.5 x 0.4	1.59	1.35	.99
111587CF	B0102	2	1.7 x 0.6	0.1	0.3	83	500 – 5500	0.5 x 0.4	~~$2.69~~ 2.09	1.69	1.39
135811CF	A1527C02	3	1.6 x 2.8 x 1.2	2.0	5.0	82	450 – 20000	0.5 x 0.5	2.95	2.49	2.25


Fig. 1 Fig. 2 Fig. 3

Samarium Cobalt Low Profile Speaker

- Round frame
- Anodized metal surfaces
- Ultra thin • Solder tabs
- Paper diaphragm
- Nominal input: 0.3W; max. input: 0.5W
- Impedance: 8Ω
- Output SPL : 85 dB
- Frequency range: 550 - 5000Hz
- Magnet size: 0.5"Dia. x 0.6"H
- Dimensions: 2.0"Dia. x 0.3"D


Side


Back

Part No.	Mfr. Cross Ref. No.	1	10	100
135626CF	MSC299	$2.95	$2.65	$2.39

1.2" (30mm) PCB Mountable Speaker

- Round frame design
- Ideal for PC board mounting
- Mylar diaphragm
- Solder leads
- Nominal input: 0.15W; max. input: 0.2W
- Impedance: 8Ω
- Output SPL: 82 dB
- Frequency range: 700 - 5000Hz
- Pin spacing: 15mm
- Dimensions: 1.2"Dia. x 0.5"D



Part No.	Mfr. Cross Ref. No.	1	10	100
135722CF	PCM415	$2.15	$1.79	$1.59

We'll match the advertised price of any like product.

Jameco's Low-Price Guarantee

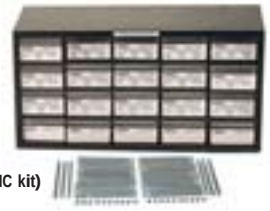
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Component Cabinet Kits

Color Code Legend: New Sale Qty Save

Kits include the Most Popular Components and a Cabinet with extra drawers for your Customized Expansion

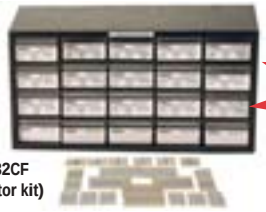
20-drawer component cabinet with every kit!



84970CF (IC kit)



84996CF (LED Kit)



81832CF (Resistor kit)

Need a refill? Just call 1•800•831•4242

Each Kit includes a 20-Drawer Component Cabinet (81701CF), 20 clear plastic drawers (85454CF), 20 clear dividers (85446CF), 30 adhesive labels for drawers to identify parts in kit, and all the Electronic Components listed in each kit.

• Cabinet size: 6.0"L x 15.0"W x 7.9"H • Drawer size: 5.5"L x 2.7"W x 1.5"H • Weight: 4.6–6.4 lbs. • Cabinet: ABS-Black • Cabinet is wall-mountable or free standing

Each Refill Package includes all Electronic Components listed in each kit; each type is separately packaged.

4000 Series CMOS IC Kit

SAVE $30

Includes 300 pcs. (25 types) CD4000 Series Integrated Circuits

10 each	10 each	10 each	10 each	20 each
CD4015	CD4024	CD4051	CD4093	CD4001
CD4016	CD4027	CD4069	CD4511	CD4011
CD4017	CD4040	CD4070	CD4538	CD4013
CD4020	CD4046	CD4071	CD4543	CD4049
CD4023	CD4050	CD4081	CD4584	CD4066

Part No.	Description	Wt. (lbs.)	1	10
84970CF	300 pcs. 4000 series CMOS IC kit	6.1	**$79.95**	**$71.95**
130403CF	Refill for 84970CF (300 pcs.)	1.4	**58.95**	**52.95**

7400 Series IC Kit

SAVE $69

Includes 350 pcs. (30 types) 7400 (TTL) Integrated Circuits

10 each	10 each	10 each	10 each	10 each	20 each
7402	7416	7438	74107	74157	7400
7405	7417	7447	74123	74160	7404
7408	7420	7470	74132	74174	7406
7410	7430	7485	74151	74175	7407
7414	7432	7495	74153	74279	7474

Part No.	Description	Wt. (lbs.)	1	10
84953CF	350 pcs. 7400 IC kit	6.2	**$139.95**	**$125.95**

74LS Series IC Kit

SAVE $45

Includes 420 pcs. (35 types) 74LS (TTL) Integrated Circuits

10 each	10 each	10 each	10 each	20 each
74LS05	74LS73	74LS125	74LS193	74LS00
74LS10	74LS75	74LS139	74LS240	74LS02
74LS11	74LS85	74LS151	74LS244	74LS04
74LS14	74LS86	74LS155	74LS245	74LS08
74LS20	74LS90	74LS157	74LS273	74LS32
74LS30	74LS93	74LS174	74LS373	74LS74
74LS47	74LS123	74LS175	74LS374	74LS138

Part No.	Description	Wt. (lbs.)	1	10
84961CF	420 pcs. 74LS IC kit	6.7	**$119.99**	**$107.99**
130391CF	Refill for 84961CF (420 pcs.)	2.0	**99.99**	**89.99**

Linear Series IC Kit

SAVE $53

Includes 480 pcs. (40 types) Linear Series Integrated Circuits

10 each	10 each	10 each	10 each	20 each
TL072CP	LM337T	LF412CN	ULN2803A	LM317T
TL074CN	LF353N	LMC555CN	NE5532	LM324N
TL082CP	LF356N	LM556N	7808T	LM339N
TL084CN	LM358N	LM723CN	78L12	LM741CN
MAX232CPE	LM386N-1	LM1458N	7815T	LM555CN
LM301N	LM386N-3	LM1488N	7905T	7805T
LM308N	LM393N	LM1489N	7912T	78L05
LM311N	LF411CN	ULN2003A	7915T	7812T

Part No.	Description	Wt. (lbs.)	1	10
84988CF	480 pcs. Linear IC kit	6.0	**$189.95**	**$169.95**
130411CF	Refill for 84988CF (480 pcs.)	1.3	**179.99**	**159.99**

Low Profile IC Socket Kit

SAVE $18

Includes 300 pcs. (10 types) Solder tail (Tin) IC Sockets

10 each	20 each	20 each	50 each	50 each
22LP	18LP	28LP	8LP	16LP
24SLP	24LP	40LP	14LP	20LP

Part No.	Description	Wt. (lbs.)	1	10
85075CF	300 pcs. LP IC Socket kit	5.5	**$31.95**	**$27.95**

LEDs & LED Mounting Hardware Kit

SAVE $34

See pages 96 & 98 for photos and specs.

Includes 560 pcs. (20 types) LEDs and mounting hardware

10 each	10 each	10 each	10 each	100 each
LVG2043	HPQLMPD141	LSG2040	LG3330	LMH100
LH2043	CLF280CTP	LY2040	LY3330	LMH200
LT0333-41	LTL-425B	LA93B/G-1	LFH3360	LR2040
LG3333	LHG3392	LA93B/H-1	LEG3362	LR3330

Part No.	Description	Wt. (lbs.)	1	10
84996CF	560 pcs. LED & Hardware kit	5.0	**$59.95**	**$49.95**

1/8-Watt Carbon Film Resistor Kit

SALE

Includes 540 pcs. (30 values) 1/8-watt 5% Resistors

10 each	10 each	10 each	10 each	10 each	10 each	50 each	50 each
10Ω	330Ω	1.5kΩ	3.3kΩ	15kΩ	47kΩ	100Ω	4.7kΩ
47Ω	390Ω	2Ω	5.1kΩ	22kΩ	470kΩ	220Ω	10kΩ
150Ω	470Ω	2.2kΩ	5.6kΩ	27kΩ	1MΩ	1kΩ	100kΩ
270Ω	680Ω	2.7kΩ	6.8kΩ	33kΩ	10MΩ		

Part No.	Description	Wt. (lbs.)	1	10
108329CF	540 pcs. 1/8-watt Resistor kit	4.9	~~$27.95~~ **$24.95**	**$22.49**
108302CF	Refill for 108329CF (540 pcs.)	0.2	**12.95**	**11.49**

1/4-Watt Carbon Film Resistor Kit

Includes 540 pcs. (30 values) 1/4-watt 5% Resistors

10 each	10 each	10 each	10 each	10 each	10 each	50 each	50 each
10Ω	330Ω	1.2kΩ	2.7kΩ	15kΩ	47kΩ	100Ω	4.7kΩ
47Ω	390Ω	1.5kΩ	3.3kΩ	20kΩ	470kΩ	220Ω	10kΩ
150Ω	470Ω	2kΩ	5.1kΩ	22kΩ	1MΩ	1kΩ	100kΩ
270Ω	680Ω	2.2kΩ	5.6kΩ	33kΩ	10MΩ		

Part No.	Description	Wt. (lbs.)	1	10
81832CF	540 pcs. 1/4-watt Resistor kit	4.9	**$27.95**	**$24.95**
103165CF	Refill for 81832CF (540 pcs.)	0.2	**12.95**	**11.49**

1/2-Watt Carbon Film Resistor Kit

Includes 540 pcs. (30 values) 1/2-watt 5% Resistors

10 each	10 each	10 each	10 each	10 each	10 each	50 each	50 each
10Ω	330Ω	1.5kΩ	3.3kΩ	15kΩ	47kΩ	100Ω	4.7kΩ
47Ω	390Ω	2kΩ	5.1kΩ	22kΩ	470kΩ	220Ω	10kΩ
150Ω	470Ω	2.2kΩ	5.6kΩ	27kΩ	1MΩ	1kΩ	100kΩ
270Ω	680Ω	2.7kΩ	6.8kΩ	33kΩ	10MΩ		

Part No.	Description	Wt. (lbs.)	1	10
107879CF	540 pcs. 1/2-watt Resistor kit	5.1	**$29.95**	**$26.95**
107852CF	Refill for 107879CF (540 pcs.)	0.4	**14.95**	**13.49**

Kits include the Most Popular Components and a Cabinet with extra drawers for your Customized Expansion



81875CF (Capacitor Kit)

Each Kit includes a 20-Drawer Component Cabinet (81701CF), 20 clear plastic drawers (85454CF), 20 clear dividers (85446CF), 30 adhesive labels for drawers to identify parts in kit, and all the Electronic Components listed in each kit.

20-drawer component cabinet with every kit!

- Cabinet size: 6.0"L x 15.0"W x 7.9"H
- Drawer size: 5.5"L x 2.7"W x 1.5"H
- Cabinet is wall-mountable or free standing
- Cabinet: ABS-Black
- Weight: 4.6 to 6.4 lbs.

Each Refill Package includes all Electronic Components listed in each kit; each type is separately packaged.

Need a refill? Just call 1•800•831•4242



108433CF (Hardware Kit)

1/2-Watt Single Turn Cermet Pot Kit

SAVE $14

See page 90 (63P Series) for photos and specs.

Includes 100 pcs. (10 values) 1/2-watt Linear Taper Potentiometer

10 each	10 each	10 each	10 each	10 each
63P500Ω	63P5kΩ	63P500kΩ	63P1kΩ	63P50kΩ
63P2kΩ	63P20kΩ	63P1MΩ	63P10kΩ	63P100kΩ

Part No.	Description	Wt. (lbs.)	1	10
85032CF	100 pcs. single turn Pot kit	4.9	$65.95	$58.95

3/4-Watt 15 Turn Cermet Pot Kit

SAVE $27

See page 90 (43P Series) for photos and specs.

Includes 100 pcs. (10 values) 3/4-watt Linear Taper Potentiometer

10 each	10 each	10 each	10 each	10 each
43P500Ω	43P5kΩ	43P500kΩ	43P1kΩ	43P50kΩ
43P2kΩ	43P20kΩ	43P1MΩ	43P10kΩ	43P100kΩ

Part No.	Description	Wt. (lbs.)	1	10
85041CF	100 pcs. 15 turn Pot kit	4.9	$87.95	$78.95

Switch Assortment Kit

SAVE $52

See pages 100, 101, 103 & 104 for photos and specs.

Includes 150 pcs. (15 types) Pushbutton, Slide, Dip & Toggle Switches

10 each	10 each	10 each	10 each	10 each
206-4	JMT121	JMT223	MPC221	MS103
206-8	JMT123	MPC121	MPC223	SDTX620K
JMT113	JMT221	MPC123	MS102	SW153

Part No.	Description	Wt. (lbs.)	1	10
85059CF	150 pcs. Switch kit	5.0	$98.95	$88.95

Hardware and Spacer Assortment Kit

SAVE $21

Includes 2300 pcs. (23 types) Spacers, Nuts, Flat, Tooth & Lock Washers and Slotted PH Screws

100 each Spacers	100 each Hex nuts	100 each Flat	100 each Int. tooth	100 each Split lock	100 each PH machine screws
—	2-56	—	—	#2	2-56 x 1/4, —
4-40	4-40	#4	#4	#4	4-40 x 1/4, 1/2
6-32	6-32	#6	#6	#6	6-32 x 1/4, 1/2
8-32	8-32	#8	#8	#8	8-32 x 1/2, —

Part No.	Description	Wt. (lbs.)	1	10
108433CF	2300 pcs. Hardware kit	7.5	$59.95	$53.95
130497CF	Refill for 108433CF (2300 pcs.)	2.7	39.95	35.95

Ceramic Disc Capacitor Kit

SAVE $19

Includes 520 pcs. (10 values) 50V ±20% Ceramic Disc Capacitors

20 each	20 each	20 each	100 each	100 each
10pF	47pF	470pF	.022µF	.01µF
22pF	100pF	.001µF	.047µF	.1µF

Part No.	Description	Wt. (lbs.)	1	10
81859CF	520 pcs. Ceramic Capacitor kit	5.0	$32.95	$29.95
130232CF	Refill for 81859CF (520 pcs.)	0.3	17.95	16.49

Monolithic Ceramic Capacitor Kit

SAVE $5

Includes 280 pcs. (10 types) 50V ±20% Monolithic Ceramic Capacitors

10 each	10 each	10 each	10 each	100 each
22pF	.001µF	.047µF	.47µF	.01µF
100pF	.0022µF	.22µF	1µF	.1µF

Part No.	Description	Wt. (lbs.)	1	10
171475CF	280 pcs. Monolithic Cap kit	5.0	$34.99	$31.49
171483CF	Refill for 171475CF (280 pcs.)	0.3	17.95	15.95

Radial Electrolytic Capacitor Kit

SAVE $9

Includes 240 pcs. (15 values) ±20% Radial Electrolytic Capacitors

10 each	10 each	20 each	20 each	20 each
100µF @ 50V	1000µF @ 16V	1µF @ 50V	3.3µF @ 50V	22µF @ 50V
220µF @ 25V	2200µF @ 25V	1µF @ 100V	4.7µF @ 50V	47µF @ 50V
470µF @ 25V	3300µF @ 25V	2.2µF @ 50V	10µF @ 50V	100µF @ 25V

Part No.	Description	Wt. (lbs.)	1	10
81867CF	240 pcs. Radial Cap. kit	5.3	$32.95	$29.95
130331CF	Refill for 81867CF (240 pcs.)	0.5	17.95	16.49

Axial Electrolytic Capacitor Kit

SAVE $13

Includes 140 pcs. (10 values) ±20% Axial Electrolytic Capacitors

10 each	10 each	10 each	20 each	20 each
47µF @ 50V	220µF @ 50V	1000µF @ 25V	1µF @ 50V	10µF @ 50V
100µF @ 50V	470µF @ 50V	2200µF @ 16V	4.7µF @ 50V	2.2µF @ 50V

Part No.	Description	Wt. (lbs.)	1	10
81875CF	140 pcs. Axial Capacitor kit	5.3	$39.99	$35.99
130340CF	Refill for 81875CF (140 pcs.)	0.6	24.95	22.49

Mylar Capacitor Kit

SAVE $9

Includes 280 pcs. (10 values) 100V ±10% Mylar Capacitors

10 each	10 each	10 each	10 each	100 each
.001µF	.022µF	.047µF	.47µF	.01µF
.0047µF	.033µF	.22µF	1µF	.1µF

Part No.	Description	Wt. (lbs.)	1	10
81883CF	280 pcs. Mylar Capacitor kit	5.1	$39.99	$35.99
130358CF	Refill for 81883CF (280 pcs.)	0.3	19.95	17.95

Dipped Tantalum Capacitor Kit

SAVE $50

Includes 150 pcs. (15 values) ±20% Dipped Tantalum Capacitors

10 each	10 each	10 each	10 each	10 each
.1µF @ 35V	1µF @ 25V	3.3µF @ 35V	10µF @ 16V	22µF @ 16V
.22µF @ 35V	1µF @ 35V	4.7µF @ 35V	10µF @ 35V	33µF @ 25V
.47µF @ 35V	2.2µF @ 16V	6.8µF @ 35V	15µF @ 25V	47µF @ 25V

Part No.	Description	Wt. (lbs.)	1	10
81841CF	150 pcs. Tantalum Capacitor kit	4.8	$74.95	$67.95
130260CF	Refill for 81841CF (150 pcs.)	0.3	59.95	53.95

Transistor Assortment Kit

SAVE $12

See page 78-79 for photos and specs.

Includes 560 pcs. (20 types) NPN, PNP (High/Medium/Low Power) Transistors

10 each	10 each	10 each	10 each	100 each
2N2222A	2N4401	MJE3055T	TIP31A	2N3904
2N2907A	2N4403	MPF102	TIP32A	2N3906
2N3053	2N5951	MPSA06	TIP102	PN2222
2N3055	2N7000	MPSA13	TIP120	PN2907

Part No.	Description	Wt. (lbs.)	1	10
82595CF	560 pcs. Transistor kit	5.1	$87.95	$78.95
130374CF	Refill for 82595CF (560 pcs.)	0.4	77.95	69.95

Diode Assortment Kit

See pages 79-80 for photos and specs.

Includes 420 pcs. (15 types) Zener, Switching and Silicon Rectifiers

10 each	10 each	10 each	10 each	100 each
1N270	1N4001	1N4735	1N5408	1N914
1N751	1N4007	1N4742	C106B1	1N4004
1N3600	1N4733	1N5404	KBP04M	1N4148

Part No.	Description	Wt. (lbs.)	1	10
82587CF	420 pcs. Diode kit	5.0	$43.95	$39.95
130366CF	Refill for 82587CF (420 pcs.)	0.3	28.95	26.49

Component Grab Bags


135394CF – Electrolytic


135271CF – LEDs


169578CF – Photocells


18294CF – Toy Motors


149649CF – Fans


55968CF – Spacers


81701CF – Cabinet

* LB grab bag quantities are approximate • Opened grab bags are not returnable • Use our 20-drawer cabinet w/ labels to store your components, P/N 81701CF, pg 111

Shaded in purple on this page you will find Jameco's nine most popular component Grab Bags. They are all individually bagged, and are combined to make up the Schwab's School Selection (P / N 163213CF) referenced towards the bottom of the page.

Capacitors

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
17857CF	GB100	200 asst. ceramic disc capacitors	0.2	$4.95	$4.49
135335CF	GB100LB*	1 lb. (813 pcs) asst. ceramic disc caps.	1.0	12.95	11.49
17881CF	GB101	100 assorted mylar capacitors	0.3	5.95	5.35
135458CF	GB101LB*	1 lb. (440 pcs) asst. mylar capacitors	1.0	14.95	13.49
17911CF	GB102	100 assorted electrolytic capacitors radial, axial, snap	0.5	4.95	4.49
135394CF	GB102LB*	1.5 lb. assorted (300 pcs) electrolytic caps. radial, axial, snap (photo above)	1.5	12.95	11.49
17945CF	GB103	100 assorted tantalum capacitors (dipped epoxy and solid tubular)	0.1	9.95	8.95

Diodes, Transistors and Crystals/Oscillators

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10	25
17961CF	GB107	200 assorted diodes (zener, switching, silicon)	0.1	$5.95	$5.35	$4.79
18171CF	GB127	100 assorted transistors (NPN, PNP, power)	0.1	5.95	5.35	4.79
114446CF	GB150	50 assorted crystals/oscillators	0.2	7.95	6.95	6.25

Trimmer and Single-Turn Potentiometers

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
18075CF	GB113	100 asst. 1/10W to 1/8W trimmer pots (100Ω to 2MΩ values)	0.1	$6.95	$6.25
18278CF	GB174	100 assorted 1/4W & 1/2W single turn pots (100Ω to 5MΩ assorted values)	0.2	6.95	6.25
135407CF	GB174LB*	1 lb. (295 pcs) 1/4W & 1/2W single turn pots (100Ω to 5MΩ assorted values)	1.0	15.95	14.39

Integrated Circuits and Sockets

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
17996CF	GB108	100 assorted 7400, 74LS00 series (74, 74C, 74F, 74S, 74ALS, 74HC, 74HCT)	0.2	$6.95	$6.25
135280CF	GB108LB*	1 lb. (400 pcs) asst. 7400, 74LS00 series (74, 74C, 74F, 74S, 74ALS, 74HC, 74HCT)	1.0	16.95	14.95
18024CF	GB109	100 asst. linear series (LM300, 500, 700, 7800, 7900 reg.) DIP, TO-3, TO-220	0.6	7.95	6.95
145242CF	GB109LB*	2 lb. (300 pcs) asst. linear series (LM300, 500, 700, 7800, 7900 reg.)	2.0	16.95	14.95
114964CF	GB171	100 asst. microprocessor series (micros, PALS, RAMs, PROMS, EPROMs)	0.7	7.95	6.95
105620CF	GB120	100 asst. IC sockets (DIP IC, PGA, TO-3)	0.3	5.95	5.35
135386CF	GB120LB*	1 lb. (260 pcs) assorted IC sockets (DIP IC, PGA, TO-3)	1.0	12.95	11.49

Surprise Computer Products Grab Bag

Best Bargain!



Various electronic components (capacitors, connectors, sockets, LEDs, resistors, diodes, ICs, transistors, pots, oscillators/resonators, inductors, crystals, switches), cables, power supply, transformer, fan, PC board, keyboard, misc. computer products.
• Weight is approximate

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
18331CF	GB190	Component/computer grab bag	20-25	$17.95	$15.95

LEDs and Displays

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10	25
18041CF	GB110	100 assorted sizes & colored LEDs (T1/T1 3/4 round and rectangular)	0.1	$6.95	$6.29	$5.65
18323CF	GB186	500 asst. sizes #18041CF LEDs	0.3	19.95	17.95	15.95
135271CF	GB110LB*	1 lb. (1900 pcs) asst. #18041CF LEDs	1.0	44.95	40.95	38.95
18201CF	GB162	50 asst. sizes of colored displays (7-segment LED, modules, stick)	0.5	~~$8.95~~ 6.95	5.95	5.95

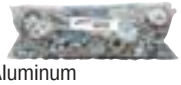
1/4W, 1/2W Resistors and Photocells

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
18104CF	GB116	200 asst. 1/4W resistors (5/10%)	0.1	$5.49	$4.95
135351CF	GB116LB*	1 lb. (2000 pcs) asst. 1/4W resistors	1.0	14.95	13.49
18139CF	GB117	200 asst. 1/2W resistors (5/10%)	0.2	5.95	5.35
169578CF	GB125	100 asst. values photocells	0.2	12.95	11.49

Switches, Toy Motors and Fans

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
18235CF	GB165	50 assorted switches (toggle, push button, rocker, slide)	0.4	$8.75	$7.69
135378CF	GB165LB*	1 lb. (135 pcs) asst. #18235CF switches	1.0	18.95	16.95
18294CF	GB182	5 asst. toy DC motors (1.5–24V)	1.1	5.49	4.95
149649CF	GB193	5 asst. AC/DC fans (photo above)	4.5	8.75	7.69

Hardware Assortments



• 2-56 • 4-40 • 6-32 • 8-32 • Screws • Plastic
• Nuts • Washers • Steel • Brass • Lock Washers • Aluminum

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10	25
171571CF	GB149*	1 lb. (500 pcs) asst. types of screws, nuts, washers & lock washers	1.0	$5.95	$5.35	$4.79
171635CF	GB149LB*	3 lbs. (1400 pcs) asst. types; same as P/N 171571CF (above)	3.0	12.95	11.49	9.95

Spacers and Standoffs Assortments

• Round • Hex • Aluminum • Brass • Steel • Plastic • Nylon

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10	25
166481CF	GB440	100 asst. 4-40 spacers/standoffs	0.5	$6.95	$6.25	$5.59
166490CF	GB632	100 asst. 6-32 spacers/standoffs	0.5	6.95	6.25	5.59
55968CF	GB140	100 asst. 4-40, 6-32, 8-32 round/ hex, alum/brass/nylon spacers	0.3	7.95	6.95	6.25
135423CF	GB140LB*	1 lb. (310 pcs) same as P/N 55968CF	1.0	17.95	15.95	13.95

Schwab's School Selection

$56.63 Value



Jameco's nine most popular Grab Bags (highlighted on this page) are all individually bagged. North Dakota Engineer, Loren Schwab, recommended this selection of products as a standard item. He also recommended a 20-drawer component cabinet with labels (81701CF photo above) for storage. **What's your suggestion?**

Includes: Ceramic and electrolytic capacitors, diodes, transistors, potentiometers, switches, LEDs, 1/4W resistors, spacers and standoffs.

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
163213CF	GB197	Schwab's School Selection	3.3	$39.95	$34.95
81701CF	CAB20	20-drawer component cabinet	4.7	15.95	13.95

Surprise Component Grab Bag

Our Best Seller!



Axial and radial electrolytics, monolithic, dipped silver mica and mylar capacitors, connectors, sockets, thermistors, LEDs, resistor networks, diodes, ICs, standoffs, transistors, oscillator/resonators, inductors, crystals, resistors, pots and switches (1075 pcs).

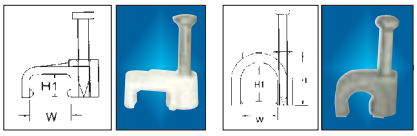
Part No.	Cross Ref. No.	Description	1	10	25
135263CF	GB191LB*	3 lbs. electronic components	$17.95	$15.95	$13.95

Component Kits

Heat Guns, Cable Clips, Wire Connectors and Accessories

Call for OEM pricing – we carry major manufacturers.

Nail-In Cable Clips



190810CF 190861CF

- Material: impact resistant PE • With nails inserted
- ***Sold in increments of 100 or 1000***

For telephone cords; white

SALE

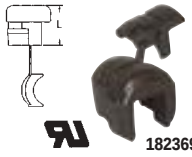
Part No.	Mfr. Cross Ref. No.	W x H x H1 (in.)	100	1000
190810CF	NF0.7	.22 x .22 x .12	~~$.15~~ $.07	$.02
190828CF	NF1.2	.24 x .21 x .15	~~$.15~~ .05	.02
190836CF	NF1.6	.31 x .31 x .20	~~$.15~~ .05	.02
190844CF	NF2.0	.33 x .31 x .20	~~$.15~~ .015	.013
190852CF	NF2.8	.59 x .50 x .34	~~$.19~~ .05	.02

For general round cables; gray

Part No.	Mfr. Cross Ref. No.	W x H x H1 (in.)	100	1000
190861CF	NCO.35N	.14 x .23 x .15	$.085	$.035
190879CF	NC0.5N	.20 x .30 x .21	~~$.15~~ .05	.02
190887CF	NC1N	.24 x .35 x .26	.085	.035
190895CF	NC2N	.31 x .45 x .34	~~$.19~~ .05	.02
190908CF	NC3N	.39 x .53 x .41	~~$.19~~ .05	.02

Round-Type Strain Relief Bushings

- Material: UL approved nylon 66, 94V-2
- Color: black
- Used extensively for protecting cords and to prolong cord life
- ***Sold in increments of 10***

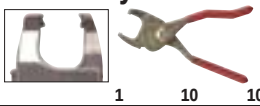


182369CF

Part No.	Cable Type	Lgth (in.)	10	100	1000
182351CF	SVI/SVT	.43	$.05	$.043	$.04
182369CF	SJ/SJT; 16 AWG	.58	.18	.10	.085
182377CF	SJC; 18 AWG	.58	.27	.23	.17

Bushing Assembly Tool

- For use with strain relief bushings, above



Part No.	Description	1	10	100
73470CF	Bushing tool	$31.95	$28.75	$25.85

Wire Connectors



182449CF 182511CF 140716CF

- Material: UL approved nylon 66, 94V2
- Quick and secure method to splice control wires
- Strip wire before application
- Twist on type
- Material: PVC with metal spring, except P/N 182449CF nylon 66, 94-2 and P/N 140716CF PE - metal inside

182449CF: UL/CSA approved

- ***Sold in increments of 10, 100 or 1000***

Part No.	Description	Color	10	100	1000
182449CF	Crimp 16-14 AWG*	Natural	$.06	$.055	$.049
182511CF	Wire-nut 16 AWG	Blue	.04	.035	.03
140716CF	Wire IDC 22-18 AWG	Red	.13	.11	.083

* Requires crimping tool (P/N 72995CF, pg 172)

Heat Shrink Tubing

- 2:1 uniform shrink ratio • Color: black
- Temperature range: -45˚C to +125˚C

PVC Heat Shrink Flat Film

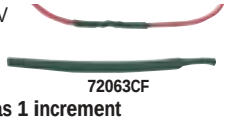
- Shrink temperature: 175˚C

*** Precut 39" length; sold as 1 increment**

Part No.	Flat	Unshrunk Cir. Dia.	Shrunk Cir. Dia.	1*	10*	100*
70631CF	5/16"	1/4"	1/8"	$1.69	$1.55	$1.39
70623CF	1/2"	5/16"	3/16"	1.69	1.45	1.09
70666CF	13/16"	9/16"	1/4"	1.69	1.55	1.39

Polyolefin Heat Shrink Tubing

- Dielectric strength: 1300V
- Flexible
- Flame retardant
- Shrink temp.: 121°C



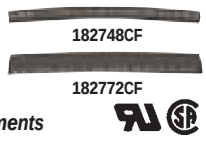
72063CF

*** Precut 39" length; sold as 1 increment**

Part No.	Before	After (Dia.)	1*	10*	100*
71327CF	1/16"	1/32"	$.55	$.46	$.41
71870CF	3/32"	3/64"	.55	.45	.39
71280CF	1/8"	1/16"	.69	.59	.54
72063CF	1/4"	1/8"	.89	.72	.65
226245CF	3/8"	3/16"	1.09	.98	.88
216477CF	1/2"	1/4"	.99	.89	.89

PVC Heat Shrink Tubing

- 2:1 uniform shrink ratio
- Color: black
- Shrink temp: 125˚C
- ***Sold in 10' and 100' increments***



182748CF 182772CF

Part No.	Dia. before (mm)	10 ft.	100 ft.
184721CF	.12" (3)	$1.19	$10.50
182730CF	.16" (4)	1.39	12.50
182748CF	.20" (5)	1.45	13.00
182756CF	.24" (6)	1.49	13.50
182764CF	.31" (8)	1.79	16.00
182772CF	.43" (11)	2.80	19.00
182781CF	.59" (15)	3.50	30.00

171-Pc. Solderless Terminal Kit

- Clear, hinged plastic box
- Use crimping tool P/N 72995CF, pg 172

170 Terminals and Connectors!



Qty.	Description	Wire Gauge	Blade Size	Qty.	Description	Wire Gauge	Blade Size
10	Male spade	16-22	1/4"	10	Ring term.	14-16	#10
10	Male spade	14-16	1/4"	5	Ring term.	10-12	#10
10	Fem. spade	16-22	1/4"	5	Ring term.	10-12	#14
10	Fem. spade	14-16	1/4"	10	Spade term.	16-22	#6
10	Ring term.	16-22	#6	10	Spade term.	16-22	#8
10	Ring term.	16-22	#8	10	Spade term.	14-16	#10
10	Ring term.	16-14	#10	10	Butt conn.	16-22	–
15	Ring term.	14-16	#6	10	Butt conn.	14-16	–
10	Ring term.	14-16	#8	5	Butt conn.	10-12	–

Part No.	Description	1	10	25
10989CF	Terminal kit	$8.95	$7.95	$7.25

Don't worry about backorders.
Over 99% of our products are in stock!

We'll Send It Today!

Just place your order by 6PM EST for same business day shipment

Heat Gun/Stripper

Dual-Setting



- Use with heat shrink material
- Works with spot-dry paint, plaster, spackle cure adhesives
- Will remove adhesive-applied tiles and linoleum without chipping
- Dual heat setting: 600°F/1100°F
- Thaw pipes, frozen locks and loosen rusted bolts
- UL listed • Weight: 1.8 lbs. • Size: 9.3"L x 7.0"W

Part No.	Description	1	10	25
76865CF	Heat gun	$39.95	$35.95	$31.95
217816CF	Heat shrink attachment	1.95	1.85	1.75
217832CF	Air spreader	1.95	1.85	1.75

Weller® 250-Watt, 3-Setting Industrial Heat Gun



- 750°F to 800°F hot air at nozzle; 3-position switch; hot-off-cool
- Designed for assembly and repair applications such as shrink tubing and vinyl, epoxy curing/drying/cooling
- 120VAC @ 60Hz • ESD safe
- Long-life heater and fan components
- 3-wire grounded plug; 6' cord

Part No.	Product No.	Wt. (lbs.)	1	10
191943CF	6966C	1.2	$119.95	$107.95

WAHL® 1,200˚F Portable Heat Gun

ETL listed



- Portable and flameless heat
- Temperatures up to 1,200˚F (650˚C)
- Typical applications: shrink tubing, activate adhesives and potting compounds, form plastics and laminates and preheat flux
- Each cartridge (disposable butane lighter) provides approximately 20 minutes of heat
- Includes disposable gas lighter
- Electronic ignition
- Size: 4.8"L x 0.9"W • One-year warranty

Part No.	Description	1	10
150691CF	Portable flameless heat gun	$26.49	$25.25

Insulated Solderless Terminals

- Insulation thickness: .030"
- Funnel ramp entry • Temperature to 105°C
- Use with crimping tool P/N 72995CF, pg 172
- ***Sold in increments of 10, 100 or 1000***

Ring Solderless



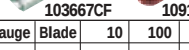
Part No.	Color	Wire Gauge	Stud	10	100	1000
103683CF	Red	16-22	#6	$.11	$.07	$.05

Spade Solderless



Part No.	Color	Wire Gauge	Stud	10	100	1000
103587CF	Red	16-22	#6	$.13	$.06	$.05
103595CF	Blue	14-16	#8	.12	.068	.06

Disconnect Solderless



103667CF 109111CF

Part No.	Descrip.	Color	Gauge	Blade	10	100	1000
106921CF	Female	Red	16-22	.187"	$.12	$.07	$.05
103667CF	Female	Red	16-22	.25"	.12	.07	.05
109111CF	Female†	Red	16-22	.25"	.17	.11	.055

† includes hood

Call for OEM pricing

Nylon Cable Ties

Standard



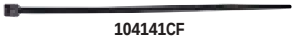
70560CF

- Cable ties made from UL approved Nylon 66
- Temperature range: -40˚C to +85˚C
- Flammability rating: UL 94V-2
- Color: clear (except P/N 182676CF)
- ***Sold in increments of 100 or 1000***

Part No.	Tensile Strength (lbs.)	Dimensions (L" x W")	100	1000
70560CF	18	3.1 x 0.10	$.025	$.015
126543CF	18	4.0 x 0.10	.02	.014
182676CF	18*	4.75 x 0.13	.035	.025
182650CF	18	5.5 x 0.13	.035	.025
139150CF	18	8.0 x 0.10	.06	.04
182668CF	18	8.0 x 0.13	.075	.05
182684CF	18	8.0 x 0.18	.036	.033
70906CF	40	5.8 x 0.10	.035	.029
190756CF	40	10.0 x 0.14	.099	.075
190772CF	40	11.0 x 0.19	.10	.07
190764CF	40	13.0 x 0.14	.10	.075

* Black

Weather Resistant



104141CF

- Contain Carbonate A for greater resistance to ultra violet rays in outdoor use
- Color: black
- ***Sold in increments of 100 or 1000***

UV Resistant

Part No.	Tensile Strength (lbs.)	Dimensions (L" x W")	100	1000
139125CF	18	3.0 x 0.90	$.045	$.029
104141CF	18	4.0 x 0.10	.044	.029
104133CF	40	5.8 x 0.10	.047	.031
190781CF	40	8.0 x 0.13	.085	.065
190799CF	40	10.0 x 0.14	.10	.09
190801CF	40	13.0 x 0.14	.113	.088
139141CF	50	4.8 x 0.18	.027	.024

Cable Tie Assortments

- Tensile strength: 18-50 lbs.

145701CF:
1000 pcs. (4"L); 10 colors

150412CF:
500 pcs. (4"L); 300 pcs. (8"L); 50 pcs. (11"L), 5 colors



145701CF

145701CF (closeup)

Part No.	Weight (lbs.)	1	10	50
145701CF	0.7	$9.49	$8.49	$7.39
150412CF	1.7	13.95	11.49	9.95

AC Cord Cable Tie

- Reusable
- Length: 6"
- Color: black
- ***Sold in increments of 100 or 1000***



Part No.	Description	100	1000
183185CF	Cable tie	$.09	$.08

Cable Tie Tool

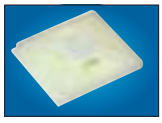
- 2.5 - 5mm width (of cable)
- Tension adjustable
- Twist to cut surplus tie end
- Spring return action
- Plastic



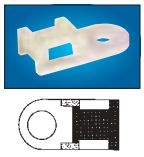
Part No.	Description	1	10	100
182297CF	Cable tie tool	$15.95	$13.95	$12.65

Cable Tie Mounts and Cable Clamps

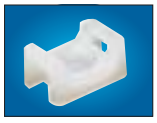
- Tie mount and screw tab cable clamps
- Material: UL approved nylon 66, 94V-2
- ***Sold in increments of 10, 100 or 1000***



182941CF/171213CF
71407CF/71394CF
71386CF



70594CF



182300CF/173761CF



182318CF/182376CF



182334CF/182342CF



173711CF/173729CF
173737CF/134754CF
173753CF

Part No.	Mfr. Cross Reference No.	Description	10	100	1000
182941CF	0505HC-101S	4-way cable tie mount, self adhesive, .75"D	$.07	$.055	$.042
171213CF	HC-100	4-way cable tie mount, self adhesive, use w/ 0.1"W max., 0.5" square	.15	.13	.094
71407CF	HC-101	4-way cable tie mount, self adhesive, use w/ 0.1"W max., 0.9" square	.18	.16	.13
71394CF	HC-102	4-way cable tie mount, self adhesive, use w/ 0.2"W max., 1.1" square	.23	.19	.14
71386CF	HC-103	4-way cable tie mount, self adhesive, use w/ 0.4"W max., 1.1" square	.25	.19	.13
70594CF	HC-0	4-way cable tie, screw type, use w/ 0.2"W max., 0.8"L x 0.4"W	.15	.09	.05
182300CF	0510HC-2	Cable tie mount, 1/4" screw hole, 0.5"D	.17	.15	.14
173761CF	HC-1	Cable tie, saddle type, 0.6"L x 0.4"W	.15	.125	.075
182318CF	0519ATC-17	2-way adjustable tie mount, #6 flat head screw, 0.7"D	.59	.52	.46
182376CF	0519ATC-22	2-way adjustable tie mount, #6 flat head screw, 0.9"D	.25	.23	.21
182334CF	0520FC-1	Cable tie mount, self adhesive, 0.1"D	.17	.15	.12
182342CF	0520FC-2	Cable tie mount, self adhesive, 0.2"D	.15	.11	.08
173711CF	UC0	Cable clamp for 1/8" cable	.08	.027	.018
173729CF	UC0.5	Cable clamp for 3/16" cable	.035	.032	.019
173737CF	UC1	Cable clamp for 1/4" cable	.14	.09	.063
134754CF	BO375	Cable clamp for 3/8" cable	.08	.029	.018
173753CF	UC3	Cable clamp for 1/2" cable	.09	.039	.025

Cable Tie Assorted Kits

195207CF:
50 pcs. assorted colors;
25 pcs. 8" and 25 pcs. 11"

195830CF:
25 pcs. each 3¾", 4¾", and 7½" clear



195207CF 195830CF

Part No.	Mfr. Cross Ref. No.	1	10	50
195207CF	VP-50-811C	$2.29	$2.09	$1.85
195830CF	BP-75 CLEAR	1.79	1.65	1.45

Nylon Cable ID Ties and Tabs



71061CF



135175CF

71061CF: Clear ID tab (0.98" x 0.31")
182692CF: White ID tab (18 lb. tensile strength)
135175CF: Nylon cable tie ID marker

- ***Sold in increments of 10, 100 or 1000***

Part No.	Size	10	100	1000
71061CF	4.0"L x 0.1"W	$.085	$.08	$.072
182692CF	8.0"L x .10"W	.12	.07	.05
135175CF	2.0"L x 0.8"W x .02"T	.22	.11	.08

TECHFLEX Cable Sleeve

Clean Cut Expandable Sleeving

- Flame resistant
- Applications: protecting wires, cables and hoses
- Operating temp.: -70˚C to 125˚C
- ***Sold in spools of 25'***



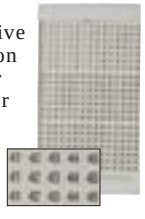
162157CF

Part No.	Product No.	Actual/Expanded Dia.	1	10
162157CF	CCPT2X	.250"/.440"	$15.95	$14.95
162165CF	CCPT3X	.500"/.750"	17.95	14.49

Pressure Sensitive Wire Marker

Easy release vinyl cloth markers feature a strong, pressure-sensitive adhesive, for long lasting bond on a wire or cable. Black non-smear legends on white background for easy identification.

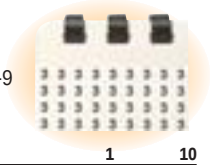
- Convenient pocket-size booklet
- 10 sheets numbered 1 to 45 each sheet



Part No.	Product No	1	10	100
216813CF	TCWM-3	$12.95	$11.65	$8.95

Self Adhesive Wire Marker

- 90 markers per number
- Stick to wires for permanent identification
- Cloth tape label numbered 0-9
- Used after or before terminal



Part No.	Product No.	1	10
182262CF	0215WMB-1	$9.95	$8.95

3M Tape Wire Marker

- For marking wires with numerical sequence
- Self adhesive tapes numbered 0-9
- Size: (tape) 96"L x 0.25"W



Part No.	Description	1	10
159231CF	Numerical tape dispenser	$30.95	$27.95

Cable Markers

- UL approved natural nylon
- ***10 piece minimum***



Part No.	Size	10	100	1000
182705CF	1.5"L x .75"W	$.10	$.09	$.08
182713CF	2.5"L x 1.76"W	.27	.25	.23

Interconnect

Call for OEM pricing

Gray Flat Ribbon Cable – 28 AWG


103481CF

- Single edge red stripe for pin 1 orientation
- Insulation: polyvinyl chloride (PVC) • 28 AWG (7 x 36) • Center spacing: 0.05"
- Voltage rating: 300V • Stranded copper wire • Temp. rating: -20°C to +80°C
- **Prepackaged and priced in increments of 10', 25', 100' or 500'**

Part No.	Cross Ref. No.	Conductors	10 ft.	25 ft.	100 ft.	500 ft.
135538CF	171-10	10	$1.49	$3.20	$11.50	$47.50
37671CF	171-16	16	2.20	5.00	16.00	70.00
37719CF	171-20	20	1.95	4.50	16.00	65.00
37760CF	171-25	25	3.90	8.75	25.00	110.00
37807CF	171-26	26	3.49	8.00	25.00	120.00
37840CF	171-34	34	4.25	9.25	32.00	120.00
37911CF	171-37	37	5.90	11.75	32.00	125.00
37920CF	171-40	40	7.40	17.50	48.00	215.00
37954CF	171-50	50	6.75	14.50	49.00	210.00
103481CF	171-60	60	8.95	19.75	65.00	285.00

Multicolor Flat Ribbon Cable – 28 AWG


105718CF

- Standard 10-color repeat sequence • 28 AWG (7 x 36)
- Center spacing: 0.05" • Voltage rating: 300V
- Temp. rating: -20°C to +80°C • Stranded copper wire
- **Prepackaged and priced in increments of 10', 25', 100' or 500'**

Part No.	Cross Ref. No.	Conductors	10 ft.	25 ft.	100 ft.	500 ft.
112547CF	28RC10	10	$1.95	$4.50	$17.50	$70.00
105671CF	28RC16	16	3.25	7.25	24.00	100.00
105689CF	28RC20	20	3.95	9.00	30.00	125.00
105697CF	28RC25	25	6.29	14.25	49.95	219.95
105700CF	28RC34	34	6.50	13.00	43.00	195.00
105726CF	28RC40	40	8.69	19.553	69.49	299.95
105718CF	28RC50	50	10.95	24.95	85.95	384.95

Solid Hook-Up Wire – 22 AWG



- Temp. range: -55°C to +105°C • Passes UL VW-1 flame test
- MIL-W-16878D type B • Wt.: 100' (0.3 lbs.); 1000' (3.8 lbs.)
- For use with breadboards such as the JE20 series, pg 112

Part No.	Cross Ref. No.	Color	100 ft.	Part No.	Cross Ref. No.	Color	1000 ft.
36767CF	122BE/C	Blue	~~$5.49~~ $4.49	36775CF	122BE/K	Blue	$29.95
36791CF	122BK/C	Black	4.49	36804CF	122BK/K	Black	35.95
36821CF	122G/C	Green	4.49	36839CF	122G/K	Green	29.95
36855CF	122R/C	Red	4.49	36863CF	122R/K	Red	39.99
36880CF	122W/C	White	4.49	36898CF	122W/K	White	39.99
36919CF	122Y/C	Yellow	4.49	36927CF	122Y/K	Yellow	29.95

Modular Telephone Cable – 28 AWG


103430CF

- Color coded conductors • Flat modular cable
- PVC jacket • Gray • 7 x 43 stranded

Part No.	Cross Ref. No.	Conductors	100 ft.	1000 ft.	10000 ft.
103430CF	MTC4	4	$3.30	$30.00	$250.00
103448CF	MTC6	6	7.00	50.00	430.00
103450CF	MTC8	8	10.00	62.00	450.00

2-Conductor Stranded Power/Speaker Cable – 24 AWG



- Black wire with white polarity stripe
- Temperature rating: 20˚C to 60˚C
- Stranded copper wire (7 x 32) • Operating voltage: 300V

Part No.	Cross Ref. No.	Wt. (lbs.)	100 ft.	Part No.	Cross Ref. No.	Wt. (lbs.)	1000 ft.
100280CF	224BK/C	0.8	$5.59	100298CF	224BK/K	7.8	$39.95

RG Type Bulk Coaxial Cable



RG58/U & RG58A/U (50Ω): Nom. cap.: 27pF/ft.; center resist.: 10.4Ω/1kft. @ 77˚F
RG59/U (75Ω): Nominal capacitance: 19pF/ft.; center resist.: 16.5Ω/kft. @ 77˚F
RG174/U (50Ω): Nominal capacitance: 30.8pF/ft.; center resist.: 97Ω/kft. @ 77˚F

- **Prepackaged and priced in increments of 100' or 1000'**

Part No.	Cross Ref. No.	Description	100 ft.	1000 ft.
102226CF	RG58/U	For ethernet, oscilloscopes (solid 20AWG)	$12.00	$90.00
116898CF	RG58A/U	For ethernet, oscilloscopes (stranded 20AWG)	19.00	150.00
102218CF	RG59/U	For CATV & video patch cords (solid 22AWG)	13.00	110.00
112037CF	RG174/U	For ethernet, oscilloscopes (stranded 26AWG)	19.00	169.00

Category 5 Network Cable


118130CF

- 100MHz • 8C • 4 twisted pairs • UTP
- Insulation: polyethylene • Nom. OD.: 189"
- Nom. impedance: 100Ω

Solid: uses modular plug P/N 119343CF, pg 205
Stranded: uses modular plug P/N 79281CF, pg 205

See pages 202 - 205 for more Modular Cable and Connectors

- **Prepackaged and priced in increments of 25' or 100'**

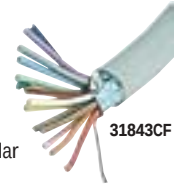
24 AWG UTP Category 5 Enhanced – 350MHz

Part No.	Description	25 ft.	100 ft.	1000 ft.
176225CF	Solid (gray)	$5.00	$17.00	$100.00
176233CF	Stranded (gray)	6.00	21.00	180.00
201582CF	Stranded (blue)	6.00	18.00	160.00

24 AWG UTP Category 5 – 100MHz

Part No.	Description	25 ft.	100 ft.	1000 ft.
118113CF	Solid (gray)	$4.59	$16.49	$129.50
118130CF	Stranded (gray) (7/32 AWG)	5.95	19.35	164.50

Multiconductor Shielded Computer Communication Cable – 24 AWG


31843CF

- Stranded copper wire, multi-colored insulation
- Insulated with polyvinyl chloride (PVC)
- Voltage rating: 300V • Color: gray • Drain wire
- 24 AWG (7 x 32 AWG) • Shielded 100% w/ aluminum mylar
- **Prepackaged and priced in increments of 25' or 100'**

Part No.	Cross Ref. No.	Conductors	Diameter	25 ft.	100 ft.	1000 ft.
31860CF	SC4	4	0.20"	$4.75	$17.00	$140.00
31878CF	SC9	9	0.23"	11.25	35.00	270.00
31843CF	SC15	15	0.28"	14.75	49.00	430.00
31851CF	SC25	25	0.37"	22.25	71.00	590.00

Stranded Hook-Up Wire – 18/20/22 AWG

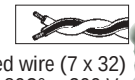


300 Volts

- 80°C • PVC insulation • CSA: TR-64 • UL style: 1007
- Temperature range: -40°C to +80°C • **Sold in 100' rolls**

Part No.	Cross Ref. No.	AWG	Strands (No. x AWG)	Color	Wt. (lbs.)	1	10
126084CF	223SBK/C	22	7 x 30	Black	0.4	$3.39	$2.99
126033CF	223SR/C	22	7 x 30	Red	0.4	3.39	2.99
126076CF	223SW/C	22	7 x 30	White	0.4	3.39	2.99
125840CF	203SBK/C	20	10 x 30	Black	0.6	4.95	4.49
125794CF	203SR/C	20	10 x 30	Red	0.5	4.95	4.49
125831CF	203SW/C	20	10 x 30	White	0.5	4.95	4.49
125786CF	183SBK/C	18	16 x 30	Black	0.8	5.25	4.69
125735CF	183SR/C	18	16 x 30	Red	0.8	5.25	4.69
125751CF	183SW/C	18	16 x 30	White	0.8	5.79	5.25

Twisted Pair Cable – 24 AWG




- PVC insulation • Use for hook up wire • Stranded tinned wire (7 x 32)
- Reduced EMI • Wt.: 100' (0.5 lbs.); 1000' (4.7 lbs.) • 80C° • 300 V

Part No.	Cross Ref. No.	Color	100 ft.	Part No.	Cross Ref. No.	Color	1000 ft.
105911CF	224GW/C	Green/white	$5.49	105806CF	224GW/K	Green/white	$44.95
173147CF	224RW/C	Red/white	5.49	173155CF	224RW/K	Red/white	44.95
173163CF	224BW/C	Black/white	5.49	173171CF	224BW/K	Black/white	44.95

Kynar™ Wire Wrap Wire – 30 AWG


22541CF

- Assorted color coded insulation • Used for prototyping
- Color coded Kynar™ (Polyvindene Fluoride) insulation
- Silver plated copper (solid conductor) • UL 1423
- Temperature: -40°C to +125°C • See pg 140 for sockets
- Wire wrap tools, pg 175 • Passes UL VW-1 flame test

Part No.	Color	Wt. (lbs.)	100 ft.	Part No.	Color	Wt. (lbs.)	1000 ft.
22541CF	Blue	0.1	$4.95	22550CF	Blue	0.6	$29.95
22576CF	Black	0.1	4.95	22584CF	Black	0.6	29.95
22630CF	Red	0.1	4.95	22648CF	Red	0.6	29.95
22664CF	White	0.1	4.95	22672CF	White	0.6	29.95
22605CF	Green	0.1	4.95	22613CF	Green	0.6	29.95
22699CF	Yellow	0.1	4.95	22701CF	Yellow	0.6	~~$29.95~~ 26.95

Belden Coaxial Cables

Compare Belden coaxial cables with the other companies who produce them and you will discover the obvious: Belden has no equal. That's because Belden coaxial cables are time-tested for performance. Performance that guarantees outstanding value. Belden guarantees this level of performance because every cable is tested with equipment that simulates every known environmental and electrical performance condition. As a result, Belden coaxial cable can be counted on for positive, reliable, and trouble-free operation. Engineered in a wide selection of sizes and materials, with each offering the benefits needed for physical, electrical and cost-requirement applications. Cable choices include broadband, standard analog, precision video for analog and digital, and more. For our complete line of Belden products, please visit www.Jameco.com/Belden.

Broadband Coax (Headend/Video Cables)

20 AWG solid .031" bare copper



- 98% tinned copper double braid shield
- Polyethylene insulation and jacket
- Nominal capacitance 68.9pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .305" • Color: black – 10

Part No.	Product No.	Description	1	5	10
232961CF	8281-100-10	100' reel	$81.29	$67.99	$61.19
232979CF	8281-500-10	500' reel	315.79	286.55	257.89
232987CF	8281-1000-10	1000' reel	574.25	526.39	485.89

50Ω Transmission and Computer Cable RG58A/U Type

20 AWG solid .032" bare copper



- 95% tinned copper braid shield
- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 93.5pF/m • Nominal impedance: 51.5Ω
- Nominal outer diameter: .193" • Color: black – 10

Part No.	Product No.	Description	1	5	10
232872CF	8240-100-10	100' reel	$35.59	$31.39	$28.49
232881CF	8240-500-10	500' reel	119.95	107.75	97.95
232899CF	8240-1000-10	1000' reel	225.25	204.95	184.95

20 AWG stranded (19 x 33) .035" tinned copper



- 95% tinned copper braid shield
- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 101pF/m • Nominal impedance: 50Ω
- Nominal outer diameter: .192" • Color: black – 10

Part No.	Product No.	Description	1	5	10
232936CF	8259-100-10	100' reel	$37.95	$33.69	$30.85
232944CF	8259-500-10	500' reel	119.95	114.85	104.49
232952CF	8259-1000-10	1000' reel	238.95	215.99	194.49

20 AWG stranded (19 x 32) .037" tinned copper



- 96% tinned copper braid shield
- Foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 86.9pF/m • Nominal impedance: 53.5Ω
- Nominal outer diameter: .194" • Color: black – 10

Part No.	Product No.	Description	1	5	10
232813CF	8219-100-10	100' reel	$31.95	$30.35	$28.85
232821CF	8219-500-10	500' reel	138.75	131.45	124.15
232830CF	8219-1000-10	1000' reel	269.75	254.75	242.15

75Ω Standard Analog Video Cable RG59/U Type

23 AWG solid .023" bare copper



- 95% bare copper braid shield
- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 67.3pF/m • Nominal impedance: 53.5Ω
- Nominal outer diameter: .242" • Color: black – 10

Part No.	Product No.	Description	1	5	10
232901CF	8241-100-10	100' reel	$39.35	$35.55	$32.35
232910CF	8241-500-10	500' reel	104.95	95.15	86.49
232928CF	8241-1000-10	1000' reel	205.99	187.15	169.99

22 AWG stranded (7 x 30) .030" bare copper



- 95% bare copper braid shield
- Foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 56.7pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .241" • Color: black – 10

Part No.	Product No.	Description	1	5	10
232653CF	9259-100-10	100' reel	$41.99	$33.95	$32.69
232661CF	9259-500-10	500' reel	109.95	89.95	85.49
232670CF	9259-1000-10	1000' reel	220.95	180.99	170.99

75Ω Broadband Coax CATV Cable RG6/U Type

18 AWG solid .040" bare copper-covered steel



9116 Series



1189A Series

- Duobond® II +60% aluminum braid shield
- Gas injected foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 53.1pF/m
- Nominal impedance: 75Ω
- Nominal outer diameter: .270" • Color: black – 10

232741CF: .298" outer dia.; Duobond® IV quad shield

Part No.	Product No.	Description	1	5	10
233269CF	9116-100-10	100' reel	$20.89	$17.55	$15.85
233277CF	9116-500-10	500' reel	57.19	50.09	47.59
233285CF	9116-1000-10	1000' reel	100.15	90.05	81.05
232733CF	1189A-100-10	100' reel	23.99	20.15	18.15
233402CF	1189A-500-10	500' reel	84.95	74.35	66.95
232741CF	1189A-1000-10	1000' reel	148.75	133.89	120.49

50Ω Transmission and Computer Cable RG8/U Type

13 AWG stranded (7 x 21) .085" bare copper



- 97% bare copper braid shield
- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 93.5pF/m • Nominal impedance: 52Ω
- Nominal outer diameter: .405" • Color: black – 10

Part No.	Product No.	Description	1	5	10
232848CF	8237-100-10	100' reel	$102.95	$92.69	$83.85
232856CF	8237-500-10	500' reel	385.95	349.95	349.95
232864CF	8237-1000-10	1000' reel	714.95	639.95	589.95

11 AWG stranded (7 x 19) .108" bare copper



- 97% bare copper braid shield
- Foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 85.3pF/m • Nominal impedance: 50Ω
- Nominal outer diameter: .285" • Color: black – 10

Part No.	Product No.	Description	1	5	10
232750CF	8214-100-10	100' reel	$104.95	$94.69	$86.85
232768CF	8214-500-10	500' reel	455.19	413.79	379.35
232776CF	8214-1000-10	1000' reel	829.15	759.99	699.99

50Ω Transmission and Computer Cable RG174/U Type

26 AWG stranded (7 x 34) .019" bare copper-covered steel



- 90% tinned copper braid shield
- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 101pF/m • Nominal impedance: 50Ω
- Nominal outer diameter: .110" • Color: black – 10

Part No.	Product No.	Description	1	5	10
232784CF	8216-100-10	100' reel	$32.95	$29.89	$27.29
232792CF	8216-500-10	500' reel	114.29	103.65	94.95
232805CF	8216-1000-10	1000' reel	205.85	194.45	182.99

Belden® Cable Now at Jameco!

Professionals don't take chances when it comes to cables, so here's great news. Now you can get your Belden cables from Jameco. The undisputed leader in quality cabling, Belden is the cable of choice for critical applications like Internet, intranet and communication network backbones. We offer the Belden cable of your choice in reels ranging from 100' to 1,000'. You'll find a wide variety of cable types, stranded and solid core, single and multi-conductor, coax, and more. And you'll find them all at very competitive prices, with our fast, efficient service at no extra charge.

Belden Multi-Pair Wire

Belden paired cable products are manufactured in a variety of gauge sizes, dimensions, insulation materials, shielding configurations, and jacketing materials including PVC, PLENUM and High-Temperature versions to meet the technical requirements of many different types of systems. Paired cables allow balanced signal transmission, which results in lower crosstalk through common mode rejection. Due to the improved noise immunity of twisted pairs, they generally permit higher data speeds than other multi-conductor cables. For our complete line of Belden products, please visit www.Jameco.com / Belden.

- Chrome PVC jacket • Tinned copper • Twisted pairs • Tinned copper drain wire
- Overall 100% BELDFOIL® shield (for shielded cables)

Audio, Control, and Instrumentation Cables Non-Plenum

22 AWG stranded (7 x 30) shielded with 22 AWG stranded TC drain wire

- Polyethylene insulation
- Nominal capacitance: 75pF/m
- Nominal outer diameter: 0.199"
- Color: chrome – 60



Part No.	Product No.	No. of Pairs	Description	1	5	10
233234CF	8771-100-60	3	100' reel	$30.89	$25.95	$23.35
233242CF	8771-500-60	3	500' reel	84.55	80.15	75.69
233251CF	8771-1000-60	3	1000' reel	164.65	155.29	146.19

22 AWG stranded (7 x 30) shielded with 22 AWG stranded TC drain wire

- Polyethylene insulation • PVC jacket
- Nominal capacitance: 111pF/m
- Nominal outer diameter: 0.135"
- Color: gray – 08



Part No.	Product No.	No. of Pairs	Description	1	5	10
232688CF	9451-100-08	1	100' reel	$20.49	$19.29	$17.95
232696CF	9451-500-08	1	500' reel	77.35	67.75	60.99
233411CF	9451-T1000-08	1	1000' tote	123.95	112.55	105.39

22 AWG stranded (7 x 30) shielded with 22 AWG stranded TC drain wire

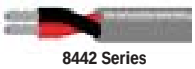
- Polyethylene insulation
- Paper wrap • Black PVC jacket
- Nominal capacitance: 111pF/m
- Nominal outer diameter: 0.138" • Color: black – 10



Part No.	Product No.	No. of Pairs	Description	1	5	10
233111CF	8451-100-10	1	100' reel	$16.99	$15.45	$14.05
233120CF	8451-500-10	1	500' reel	75.65	68.65	62.39
233138CF	8451-1000-10	1	1000' tote	135.99	124.65	115.15

22 AWG stranded (7 x 30) unshielded

- PVC insulation • Color: chrome – 60



8442 Series



8443 Series



8444 Series



8445 Series

Part No.	Product No.	No. of Pairs	Description	1	5	10
232995CF	8442-100-60	2	100' reel	$10.15	$9.15	$8.35
233007CF	8442-500-60	2	500' reel	46.75	44.29	41.85
233015CF	8442-1000-60	2	1000' reel	89.65	85.85	80.79
233023CF	8443-100-60	3	100' reel	13.55	12.29	11.19
233031CF	8443-500-60	3	500' reel	62.85	59.55	56.25
233040CF	8443-1000-60	3	1000' reel	122.15	115.39	108.59
233058CF	8444-100-60	4	100' reel	17.15	15.55	14.15
233066CF	8444-500-60	4	500' reel	79.35	75.15	70.99
233074CF	8444-1000-60	4	1000' reel	154.29	145.69	137.15
233082CF	8445-100-60	5	100' reel	21.35	19.35	17.59
233091CF	8445-500-60	5	500' reel	106.09	96.45	88.39
233103CF	8445-1000-60	5	1000' reel	192.19	181.49	170.85

18 AWG stranded (16 x 30) shielded with 20 AWG stranded TC drain wire

- Polyethylene insulation
- Nominal capacitance: 79pF/m
- Nominal outer diameter: 0.246"
- Color: chrome – 60



Part No.	Product No.	No. of Pairs	Description	1	5	10
233200CF	8770-100-60	3	100' reel	$49.89	$41.89	$30.89
233218CF	8770-500-60	3	500' reel	134.39	121.95	110.79
233226CF	8770-1000-60	3	1000' reel	249.09	235.99	215.39

High-Temperature Control and Instrumentation Cables and Computer Cables for EIA RS-232 Applications

24 AWG stranded (7 x 32) shielded with 24 AWG stranded TC drain wire

- Semi-rigid PVC insulation • Nominal DCR: 24Ω/m
- Nominal impedance: 75Ω
- Color: chrome – 60



9501 Series



9502 Series



9503 Series



9504 Series

Part No.	Product No.	No. of Pairs	Description	1	5	10
232709CF	9501-100-60	1	100' reel	$11.65	$10.79	$9.79
232717CF	9501-500-60	1	500' reel	54.99	51.95	48.95
232725CF	9501-1000-60	1	1000' reel	108.85	102.39	96.59
232451CF	9502-100-60	2	100' reel	19.19	17.35	15.79
232469CF	9502-500-60	2	500' reel	88.55	83.89	79.25
232477CF	9502-1000-60	2	1000' reel	172.19	160.59	153.19
232485CF	9503-100-60	3	100' reel	22.65	20.95	18.99
232493CF	9503-500-60	3	500' reel	114.75	108.69	102.65
232506CF	9503-1000-60	3	1000' reel	223.19	210.69	199.99
232514CF	9504-100-60	4	100' reel	28.29	23.19	21.25
232522CF	9504-500-60	4	500' reel	140.35	132.95	125.59
232531CF	9504-1000-60	4	1000' reel	258.85	211.55	199.99
232549CF	9505-100-60	5	100' reel	31.55	25.75	23.69
232557CF	9505-500-60	5	500' reel	156.45	148.19	139.95
232565CF	9505-1000-60	5	1000' reel	304.95	287.25	272.89

Line Level Analog Audio Cable

16 AWG stranded (19 x 29) shielded with 18 AWG stranded TC drain wire

- Polyethylene insulation
- Nominal capacitance: 75pF/m
- Nominal outer diameter: 0.313"
- Color: chrome – 60



Part No.	Product No.	No. of Pairs	Description	1	5	10
233146CF	8719-100-60	1	100' reel	$51.09	$42.89	$38.59
233154CF	8719-500-60	1	500' reel	161.45	146.49	133.19
233162CF	8719-1000-60	1	1000' reel	294.29	269.15	248.39

14 AWG stranded (19 x 27) shielded with 16 AWG stranded TC drain wire

- Polyethylene insulation
- Nominal capacitance: 79pF/m
- Nominal outer diameter: 0.355"
- Color: chrome – 60

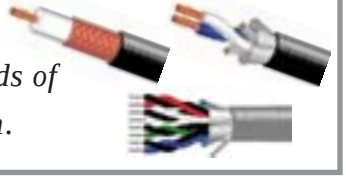


Part No.	Product No.	No. of Pairs	Description	1	5	10
233171CF	8720-100-60	1	100' reel	$48.95	$41.09	$36.99
233189CF	8720-500-60	1	500' reel	189.15	171.59	155.89
233197CF	8720-1000-60	1	1000' reel	343.85	315.29	290.95

More Belden on the way!

www.Jameco.com/Belden

Visit our website.
We're adding hundreds of
NEW *types very soon.*



Belden Speaker Cables

These speaker cables are used to connect receivers or power amplifiers to speakers and are also used for the internal wiring of the speakers. All Belden speaker cables utilize only high-conductivity copper produced by a process called Electrolytic Tough Pitch (ETP). This refining process produces a conductor that is 99.95% pure copper resulting in high-conductivity per ASTM B115. The high purity obtained from ETP copper results in audio cable performance that is comparable to that of oxygen-free copper cables.

Electrolytic Tough Pitch (ETP) High Conductivity Copper Speaker Cables; Parallel Zip Construction

- 2-conductor stranded
- ETP high conductivity copper
- Parallel (1) tinned (1) bare
- PVC insulation • Clear PVC jacket – 368



18 AWG Stranded (16 x 30)

Part No.	Product No.	Description	1	5	10
232573CF	9708-100-368	100' reel	$27.19	$24.59	$22.35
232581CF	9708-500-368	500' reel	99.99	94.95	89.69
232590CF	9708-1000-368	1000' reel	189.89	179.35	168.79

14 AWG Stranded (19 x 27)

Part No.	Product No.	Description	1	5	10
232602CF	9717-100-368	100' reel	$56.95	$47.89	$42.99
233429CF	9717-500-368	500' reel	222.29	210.59	189.55
232611CF	9717-1000-368	1000' reel	399.25	376.99	339.39

12 AWG Stranded (65 x 30)

Part No.	Product No.	Description	1	5	10
232629CF	9718-100-368	100' reel	$119.69	$100.55	$90.49
232637CF	9718-500-368	500' reel	319.29	282.39	244.85
232645CF	9718-1000-368	1000' reel	635.69	569.29	519.75

Belden Hook-up Wire

UL AWM Style 1007

Belden hook-up and lead wire products are manufactured in-house in a variety of materials, sizes, and designs to meet rigid industry and government specifications. As a result, consistent quality is always assured. Used in a wealth of applications including inter-connection circuits, internal wiring of computer and data processing equipment, appliances, lighting, motor leads, heating and cooling equipment, harness equipment and automotive. AWM, or Appliance Wiring Material, is Underwriter Laboratories' recognized covering of insulated wires and cables intended for internal wiring of appliances and equipment. Each construction satisfies the requirements for use in particular applications. Wiring materials recognized under this classification bear the Underwriters' "Appliance Wiring Material" label.

- Tinned copper • PVC insulated
- Rated 105˚C, 300V
- Rated 600V peak for electronic circuits and electronic wiring of electronic and electrical equipment
- Increments of 100' reels



Use the color code chart below to replace the "xx" when ordering

01 – Brown	02 – Red	03 – Orange	04 – Yellow	05 – Green
07 – Violet	08 – Gray	09 – White	10 – Black	13 – Dark blue

i.e. **234301CF** – **2343** is the Jameco designation for 22 AWG stranded wire and **01** is for color brown

Part No.	Product No.	Description	1	5	10
2343xxCF	9921-100-xx	22 AWG (7 x 30) stranded	$12.95	$11.85	$10.75
2342xxCF	9919-100-xx	20 AWG (7 x 28) stranded	15.95	14.49	13.19
2341xxCF	9918-100-xx	18 AWG (16 x 30) stranded	16.95	15.95	13.95

For our complete line of Belden products, visit
www.Jameco.com/Belden

AMP Headers

0.156" (3.96mm) Male Headers

- Voltage and current rating: 600VAC @ 7.0A
- Contact material/plating: copper alloy/tin
- UL94V-0 flammability rating
- 0.045" square posts
- Insulator material: polyester
- Solder tail material/plating: copper alloy/tin



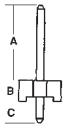
231491CF



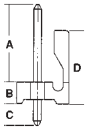
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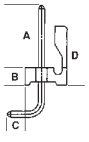
232418CF



Straight Header



Straight Friction Lock



Right Angle Friction Lock

Straight Friction Lock Headers

- Dimensions: (A) .450"; (B) .125"; (C) .125"; (D) .425"

✻Prepackaged: order in increments of 10 or 100

Part No.	Product No.	Positions	1	10	100
231546CF	640445-2	2 ✻	$.07	$.06	
231554CF	640445-3	3 ✻	.075	.065	
231562CF	640445-4	4 ✻	.10	.08	
231571CF	640445-5	5 ✻	.14	.10	
231589CF	640445-6	6 ✻	.17	.13	
231597CF	640445-7	7 ✻	.18	.15	
231600CF	640445-8	8 ✻	.23	.17	
231626CF	1-640445-0	10	.31	.23	.20

Straight Headers

- Dimensions: (A) .450"; (B) .125"; (C) .125"

Part No.	Product No.	Positions	1	10	100
231458CF	640383-2	2	$.23	$.20	$.17
231466CF	640383-3	3	.26	.23	.20
231474CF	640383-4	4	.29	.26	.23
231482CF	640383-5	5	.37	.33	.29
231491CF	640383-6	6	.40	.36	.32
231503CF	640383-7	7	.47	.42	.37
231511CF	640383-8	8	.55	.46	.41
231520CF	640383-9	9	.60	.53	.47
231538CF	1-640383-0	10	.65	.58	.52

Right Angle Friction Lock Headers

- Dimensions: (A) .450"; (B) .125"; (C) .125"; (D) .425"

Part No.	Product No.	Positions	1	10	100
232362CF	640389-2	2	$.29	$.26	$.23
232371CF	640389-3	3	.44	.39	.34
232389CF	640389-4	4	.59	.52	.46
232397CF	640389-5	5	.74	.65	.57
232400CF	640389-6	6	.80	.71	.62
232418CF	640389-7	7	.93	.83	.73
232426CF	640389-8	8	1.06	.94	.83
232434CF	640389-9	9	1.19	1.06	.92
232442CF	1-640389-0	10	1.33	1.18	.98

AMP Joins the Jameco Line

Introducing AMP D-subminiature connectors, crimp and solder contacts, headers and D-sub hoods — the standard for quality around the globe. Get AMP top-quality brand-name products, along with all your other electronic components and tools, with one call to Jameco. Take a look at our selection on the left and page 132.





See page 132 for AMP D-Sub Connectors with Crimp and Solder Contacts.





30-Day Money-Back Guarantee

If you're not satisfied, we'll take it back!
Details on page 226.

.156" (3.9mm) Center Straight-Friction Lock Headers





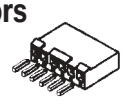
104811CF

- Ideal for AC and DC power distribution
- Voltage rating: 250VAC/VDC max.
- Current rating: 7 amps AC/DC
- Contact resistance: 20mΩ
- Temperature range: -25°C to +85°C
- Header material: pin - brass/tin-plated
- Base: nylon 66, UL94V-2

✳ **Prepackaged: order in increments of 10, 100, 1000**

Part No.	Cross Ref. No.	Pins	1	10	100	1000
104791CF	LMH4	4	✳	$.11	$.09	$.07
104803CF	LMH5	5	✳	.14	.11	.09
104811CF	LMH6	6	✳	.15	.12	.10
104838CF	LMH8	8	.12	.11	.099	.09
104846CF	LMH10	10	.22	.17	.16	.14
235491CF	8673-12-5	12	.35	.32	.25	.23

.156" (3.9mm) Center Housing Connectors





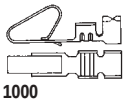
104731CF

- Common to many power supplies carried by Jameco. Some power supplies (pgs 7-13) may require multiple connectors
- Housing material: nylon 66, UL94V-2
- Use with crimp pins, 78318CF, below

✳ **Prepackaged: order in increments of 10, 100, 1000**

Part No.	Cross Ref. No.	Pins	1	10	100	1000
176743CF	LCH2	2	✳	$.07	$.045	$.04
104432CF	LCH3	3	✳	.19	.12	.11
104715CF	LCH4	4	✳	.22	.15	.12
104723CF	LCH5	5	.24	.22	.16	.12
104731CF	LCH6	6	.33	.30	.24	.15
104766CF	LCH10	10	.39	.32	.28	.23

.156" (3.9mm) Center Crimp Pin



- Use with .156 housings (above)
- Use 159265CF crimping tool, pg 172
- Material: brass/tin plated
- Pin wire gauge: 22-26 AWG

Prepackaged: order in increments of 10, 100, 1000

Part No.	Mfr. Cross Ref. No.	10	100	1000
78318CF	AMP501T	$.11	$.08	$.07

.156" Female Crimp Pins



- Pin wire gauge: 18-22 AWG
- Material: tin-plated brass
- Use 99442CF crimping tool, pg 172

Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	10	100	1000
154093CF	LRPIN	$.07	$.05	$.035





More Crimping Tools for above Crimp Pins – See page 172.

0.118"-Pitch ATX Power Connectors for Motherboards & Power Supplies

- Voltage rating: 250V AC/DC • Current rating: 7A AC/DC • Temperature range: -25°C to 85°C
- Insulation resistance: 1000MΩ min.
- Withstanding voltage: 1500V/min.

147379CF: ATX male 20-pin edge mount connector
- Material: nylon 66, UL-94VO
- Material of post: tin-plated brass • Diameter of post: .045"

147387CF: Housing connector • Material: nylon 66, UL-94VO

147395CF: ATX power terminal pins • Material: tin-plated brass



147379CF



147395CF



147387CF

✳ **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Description	L	W	H	Dia	Use With	1	10	100	1000
147379CF	20-pin male connector	1.7"	0.4"	0.6"	—	—	$.59	$.53	$.48	$.43
147387CF	20-pin housing connector	1.7"	0.4"	0.8"	—	147395CF	✳	.19	.17	.15
147395CF	Power terminal pin, female	.59"	—	—	.068"	147387CF	✳	.12	.11	.10

0.098"-Pitch AT Power Connectors for Motherboards & Power Supplies

- Voltage rating: 250V AC/DC • Current rating: 7A AC/DC • Temperature range: -25°C to 85°C
- Insulation resistance: 1000MΩ minimum • Withstanding voltage: 1500V/min.

78300CF: AMP60G male 6-pin PCB mount connector
- Material of post: tin-plated brass • Diameter of post: .09"

78326CF: AMP50G female 6-pin housing connector • Material: nylon

78318CF: AMP501T terminal pin
- Material: tin-plated brass

78326CF



78300CF



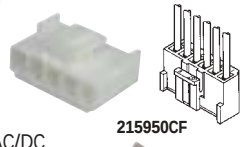
78318CF

✳ **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Description	L	W	H	Dia	Use With	1	10	100	1000
78300CF	6-pin male connector	.93"	.37"	.57"	—	—	$.45	$.39	$.35	$.31
78326CF	6-pin housing connector	.94"	.25"	.74"	—	78300CF	.35	.31	.28	.25
78318CF	Power terminal pin, female	.69"	—	—	.09"	78326CF	✳	.11	.08	.07

.156" (3.9mm) Center Housing Connectors and Crimp Contact

- Mating connectors for Mean Well LPS and LPP series power supplies (pgs 17-19)
- Current rating: 10A AC/DC
- Voltage rating: 250V AC/DC



215950CF

227416CF:
- Meterial: brass
- Finish: tin-plated
- 18-22 AWG



227416CF

✳ **Prepackaged: order in increments of 10, 100, 1000**

Part No.	Description	1	10	100	1000
215950CF	5 pos. housing	$.35	$.32	$.28	$.26
215976CF	8 pos. housing	.39	.35	.32	.28
215968CF	12 pos. housing	.49	.44	.39	.35
227416CF	Crimp contact	✳	.29	.19	.10

Extraction Tools for Crimp Pins

- Quickly and easily extract 0.093" locking pins from interlocking connectors
- Length: 5"
- See right for crimp pins, 42729CF & 42649CF



131887CF

Part No.	Product No.	Description	1	10
131887CF	HT319C	Male tool for 42729CF	$9.95	$8.95
131879CF	HT319B	Fem. tool for 42649CF	9.95	8.95

Jameco's Low-Price Guarantee



We'll match the advertised price of any like product.

It's that simple!

0.2"-Pitch Power Connectors & Pins

Connector & Housing Specifications:
- Voltage rating: 250VAC (Mate-N-Lock 600VAC)
- Operating temperature: -55°C to +105°C

Crimp Pin Specifications:
- Material: tin plated brass • Current rating: 1.5 amps
- Wire size range: 18-24 AWG
- Use crimp tool P/N 99442CF, pg 172

For 5.25" Disk Drives and Power Supplies

42075CF & 42067CF Connector Housings:
- Keyed mating connectors
- External key bar indicates pin 1



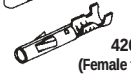
109145CF



117567CF



42729CF (Male for 42075CF)



42649CF (Female for 42067CF)



42075CF (Male)



42067CF (Female)

- See far left for extraction tools, 131887CF & 131879CF

• Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	10	100	1000
109145CF	4-pin M vert. PCB mtg	$.59	$.49	$.31
117567CF	4-pin M PCB mounting, horizontal edge mount	.63	.55	.49
42075CF	4-pin M housing	.12	.11	.10
42067CF	4-pin F housing	.20	.15	.13
42729CF	M crimp pin for 42075CF	.10	.07	.06
42649CF	F crimp pin for 42067CF	.10	.07	.06

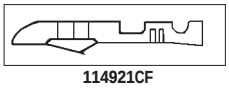
For 3.5" Disk Drives and Power Supplies



114930CF



114999CF



114921CF

• Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	10	100	1000
114930CF	4-pin F housing	$.19	$.17	$.15
114921CF	F crimp pin for 114930CF	.11	.095	.08

Part No.	Description	1	100	1000
114999CF	4-pin M rt. angle PCB mtg	$.35	$.31	$.28

.062" (1.57mm) Power Connectors

- Passive friction lock
- Polarized housing assures proper mating
- Voltage: 250V • Current: 5.0A
- Dielectric withstanding voltage: 1500VAC$_{RMS}$
- Contact retention to housing: 20 lbs. minimum
- Housing: nylon; UL94V-2
- Temperature range: -40˚C to +105˚C

Plugs



224485CF 224506CF 224522CF

Without Mounting Ears

Part No.	Product No.	Circuits	1	10	100
224477CF	03-06-2011*	1	$.29	$.16	$.13
224485CF	03-06-2023*	2	.30	.18	.15
224493CF	03-06-2032*	3	.31	.19	.16
224506CF	03-06-2042*	4	.39	.27	.24
224514CF	03-06-2044**	4	.39	.27	.24
230244CF	03-06-2055*	5	.47	.26	.24
224522CF	03-06-2061**	6	.45	.28	.25
224531CF	03-06-2092**	9	.49	.27	.24
224549CF	03-06-2122**	12	.52	.30	.25

*In-line **Grid

With Mounting Ears

Part No.	Product No.	Circuits	1	10	100
229948CF	03-06-2024*	2	$.30	$.17	$.14
229964CF	03-06-2033*	3	.35	.18	.15
229981CF	03-06-2041*	4	.47	.27	.24
230009CF	03-06-2043**	4	.47	.26	.24
230025CF	03-06-2054**	5	.47	.26	.24
230041CF	03-06-2062**	6	.47	.26	.24
230068CF	03-06-2091**	9	.47	.26	.24
230084CF	03-06-2121**	12	.55	.29	.26

*In-line **Grid

Receptacles



224400CF 224426CF 224442CF

Without Mounting Ears

Part No.	Product No.	Circuits	1	10	100
224397CF	03-06-1011*	1	$.29	$.16	$.13
224400CF	03-06-1023*	2	.30	.18	.15
224418CF	03-06-1032*	3	.31	.19	.16
224426CF	03-06-1042*	4	.39	.27	.24
224434CF	03-06-1044**	4	.39	.27	.24
230252CF	03-06-1056*	5	.55	.35	.31
224442CF	03-06-1062**	6	.45	.28	.25
224451CF	03-06-1092**	9	.49	.27	.24
224469CF	03-06-1122**	12	.52	.30	.25

*In-line **Grid

With Mounting Ears

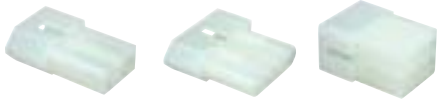
Part No.	Product No.	Circuits	1	10	100
229956CF	03-06-1022*	2	$.31	$.16	$.14
229972CF	03-06-1038*	3	.32	.17	.15
229999CF	03-06-1041*	4	.49	.26	.23
230017CF	03-06-1043**	4	.49	.26	.23
230033CF	03-06-1055**	5	.59	.49	.36
230050CF	03-06-1061**	6	.47	.26	.23
230076CF	03-06-1091**	9	.47	.26	.23
230092CF	03-06-1121**	12	.49	.33	.30

*In-line **Grid

.093" (2.36mm) Power Connectors

- Passive friction lock
- Voltage: 250V
- Current: 12A per circuit
- Dielectric withstanding voltage: 1500VAC$_{RMS}$
- Contact retention to housing: 20 lbs. minimum
- Housing: nylon; UL94V-2
- Temperature range: -40˚C to +105˚C

Plugs



224071CF 224098CF 224101CF

Without Mounting Ears

Part No.	Product No.	Circuits	1	10	100
224063CF	03-09-2011*	1	$.29	$.18	$.12
224071CF	03-09-2022*	2	.30	.25	.18
224080CF	03-09-2032*	3	.41	.32	.21
224098CF	03-09-2042*	4	.45	.22	.20
229825CF	03-09-2049**	4	.45	.34	.26
230261CF	03-09-2057*	5	.55	.29	.26
224101CF	03-09-2062**	6	.49	.39	.29
224119CF	03-09-2092**	9	.55	.35	.30
224127CF	03-09-2121**	12	.69	.59	.39

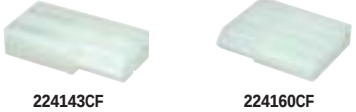
*In-line **Grid

With Mounting Ears

Part No.	Product No.	Circuits	1	10	100
230105CF	03-09-2021*	2	$.35	$.18	$.16
230121CF	03-09-2031*	3	.42	.22	.20
230148CF	03-09-2041**	4	.42	.22	.20
230164CF	03-09-2040**	4	.64	.59	.35
230181CF	03-09-2061**	6	.35	.33	.25
230201CF	03-09-2091**	9	.65	.35	.31
230228CF	03-09-2122**	12	.71	.38	.35

*In-line **Grid

Receptacles



224143CF 224160CF

Without Mounting Ears

Part No.	Product No.	Circuits	1	10	100
224135CF	03-09-1011*	1	$.29	$.09	$.08
224143CF	03-09-1022*	2	.30	.25	.18
224151CF	03-09-1032*	3	.44	.25	.16
224160CF	03-09-1042*	4	.46	.25	.22
229817CF	03-09-1049**	4	.46	.33	.25
230279CF	03-09-1057*	5	.59	.49	.32
224178CF	03-09-1064**	6	.49	.23	.20
224186CF	03-09-1094**	9	.69	.59	.39
224194CF	03-09-1126**	12	.75	.49	.39

*In-line **Grid

With Mounting Ears

Part No.	Product No.	Circuits	1	10	100
230113CF	03-09-1027*	2	$.35	$.17	$.15
230130CF	03-09-1081*	3	.48	.24	.22
230156CF	03-09-1041*	4	.40	.23	.17
230172CF	03-09-1040**	4	.48	.25	.23
230199CF	03-09-1061**	6	.49	.26	.25
230210CF	03-09-1091**	9	.62	.33	.30
230236CF	03-09-1125**	12	.62	.33	.30

*In-line **Grid

.062" (1.57mm) Contacts

- Durability: tin – 25 mating/un-mating cycles max.
- Contact: brass or phosphor bronze
- Tin plating
- Temperature range: -40˚C to +105˚C
- **Prepackaged: order in increments of 10, 100 or 1000**

Crimp-Type Contacts



224565CF 224557CF

Part No.	Product No.	Gender	AWG	10	100	1000
224565CF	02-06-2103	M	18-24	$.18	$.057	$.038
224581CF	02-06-2132	M	24-30	.18	.057	.038
224557CF	02-06-1103	F	18-24	.18	.057	.038
224573CF	02-06-1132	F	24-30	.18	.057	.038

Solder-Tail Contacts



227379CF 227387CF

Part No.	Product No.	Gender	10	100	1000
227379CF	02-06-8103	Male	$.18	$.11	$.066
227387CF	02-06-7103	Female	.18	.11	.066

.093" (2.36mm) Contacts

- Durability: tin – 25 mating/ un-mating cycles max.
- Contact: brass or phosphor bronze
- Tin plating
- Temperature range: -40˚C to +105˚C
- **Prepackaged: order in increments of 10, 100 or 1000**

Crimp-Type Contacts



224207CF 224215CF

Part No.	Product No.	Gender	AWG	10	100	1000
224207CF	02-09-2118	M	18-22	$.19	$.06	$.04
224223CF	02-09-2103	M	14-20	.18	.059	.04
224215CF	02-09-1119	F	18-22	.20	.07	.04
224231CF	02-09-1104	F	14-20	.18	.059	.04

Solder-Tail Contacts



224240CF 224258CF

Part No.	Product No.	Gender	10	100	1000
224240CF	02-09-2133	Male	$.149	$.129	$.091
224258CF	02-09-1134	Female	.20	.14	.09

Hand Crimp Tool



This tool is designed to crimp terminals, strip and cut wires, and cut bolts. Cuts and strips wires from 18-30 AWG. For Molex crimp pin terminals with .062", .093" diameters and KK® series on opposite page.

• Length: 8.3"L • Weight: 0.5 lbs.

Part No.	Product No.	1	10
227491CF	W-HT-1921	$14.99	$13.99

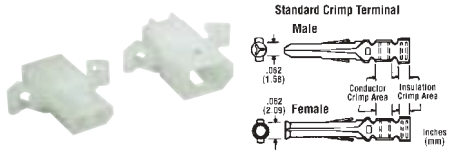
Interconnect

.062" Power Connector Kit

This assortment kit contains mating sets of housings and pins.

- Voltage: 250VAC • Current: 5A
- Temperature range: -40˚C to +105˚C

Includes: 3 ea. 2-pin plugs and 2-pin receptacles, 8 ea. male contacts and 8 ea. female contacts.



Part No.	Product No.	Description	1	10	50
142113CF	1625-2	Kit	~~$6.49~~ $5.69	$5.15	$4.59

.093" Power Connector Kits

These assortment kits contain mating sets of housings and pins.

- Voltage: 250VAC
- Temperature range: -40˚C to +105˚C

142181CF: • 3 ea. 2-pin plugs & receptacles, 8 ea. female & male contacts • Current: 12A

142201CF: • 2 ea. 4-pin plugs & receptacles, 10 ea. female & male contacts • Current: 9A

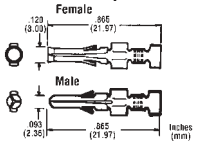
142228CF: • 2 ea. 6-pin plugs & receptacles, 14 ea. female & male contacts • Current: 9A

Includes: Male and female tin-plated standard brass .010" pins; 18-22 AWG crimp size wire

Receptacle Plug



Standard Crimp Contacts



142228CF

Part No.	Product No.	Description	1	10	50
142181CF	1545	Kit	$4.95	$4.49	$3.95
142201CF	1490	Kit	5.69	5.15	4.65
142228CF	1261	Kit	5.25	4.75	3.95

Extraction Tools for Molex Connectors



142156CF/142236CF



227467CF/227395CF



236128CF



234940CF

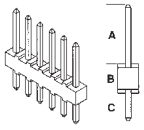
142156CF/227467CF: For .062" power connectors
142236CF/227395CF: For .093" power connectors
236128CF/234940CF: For .100" KK® series housing

Part No.	Product No.	AWG	1	10
142156CF	W-HT-2285	18-30	$14.49	$13.49
227467CF	W-HT-2023	18-30	11.99	10.99
142236CF	W-HT-2038	14-30	14.49	13.49
227395CF	W-HT-2054	14-30	11.99	10.99
236128CF	W-HT-1884	22-30	9.99	8.99
234940CF	11-03-0022	22-30	14.99	12.99

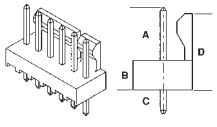
Find more products on Jameco website.
www.Jameco.com

KK® Series .100" (2.54mm) Male Headers

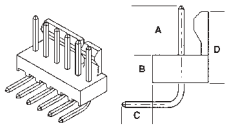
- Voltage: 250V • Current: 4.0A
- Contact resistance: 20mΩ max.
- Dielectric withstanding voltage: 1500V
- Insulation resistance: 50kMΩ min.
- Housing: red nylon, UL94V-0
- Contact: brass, 0 – 6.4mm (0.25") square
- Durability: tin – 25 cycles max.; gold – 100 cycles max.



Straight Header



Straight Friction Lock



Right Angle Friction Lock

Straight Headers (Tin)

- Dimensions: (A) .295"; (B) .130"; (C) .135"

✳**Prepackaged: order in increments of 10 or 100**

Part No.	Product No.	Positions	1	10	100
232178CF	22-03-2021	2	✳	$.10	$.09
232186CF	22-03-2031	3	✳	.16	.14
232194CF	22-03-2041	4	✳	.21	.19
232207CF	22-03-2051	5	.29	.26	.24
232215CF	22-03-2061	6	.34	.31	.27
232223CF	22-03-2081	8	.40	.37	.33
232231CF	22-03-2101	10	.46	.42	.37
232240CF	22-03-2121	12	.56	.51	.45

Straight Friction Lock Headers (Tin)

- Dimensions: (A) .295"; (B) .125"; (C) .140"; (D) .322"

Part No.	Product No.	Positions	1	10	100
232266CF	22-23-2021	2	$.29	$.23	$.15
232274CF	22-23-2031	3	.35	.30	.19
232282CF	22-23-2041	4	.42	.36	.23
232291CF	22-23-2051	5	.49	.42	.27
232303CF	22-23-2061	6	.55	.48	.31
232311CF	22-23-2071	7	.63	.55	.36
232320CF	22-23-2081	8	.72	.63	.41
232338CF	22-23-2091	9	.76	.66	.36
232346CF	22-23-2101	10	.80	.70	.46
232354CF	22-23-2121	12	.95	.83	.55

Over 99% of our products are in stock!

We'll Send It Today!

Just place your order by 6PM EST for same business day shipment.

Right Angle Friction Lock Headers (Tin)

- Dimensions: (A) .260"; (B) .125"; (C) .141"; (D) .322"

Part No.	Product No.	Positions	1	10	100
233437CF	22-05-3021	2	$.42	$.36	$.22
233445CF	22-05-3031	3	.56	.49	.30
233453CF	22-05-3041	4	.71	.61	.39
233461CF	22-05-3051	5	.77	.67	.43
233470CF	22-05-3061	6	.85	.74	.48
233488CF	22-05-3071	7	.99	.79	.56
233496CF	22-05-3081	8	1.03	.83	.58
233509CF	22-05-3101	10	1.08	.94	.61
233517CF	22-05-3121	12	1.19	.99	.69

Straight Friction Lock Headers (Gold)

- Dimensions: (A) .295"; (B) .125"; (C) .140"; (D) .322"

Part No.	Product No.	Positions	1	10	100
233584CF	22-11-2022	2	$.54	$.46	$.29
233592CF	22-11-2032	3	.85	.74	.47
233605CF	22-11-2042	4	.87	.76	.49
233613CF	22-11-2052	5	1.22	1.06	.69
233621CF	22-11-2062	6	1.34	1.17	.76
233630CF	22-11-2072	7	1.55	1.36	.89
233648CF	22-11-2082	8	1.62	1.42	.93
233656CF	22-11-2102	10	2.02	1.77	1.16
233664CF	22-11-2122	12	2.41	2.12	1.39

Right Angle Friction Lock Headers (Gold)

- Dimensions: (A) .260"; (B) .125"; (C) .141"; (D) .322"

Part No.	Product No.	Positions	1	10	100
233672CF	22-12-2024	2	$.89	$.77	$.48
233681CF	22-12-2034	3	1.15	.99	.63
233699CF	22-12-2044	4	1.36	1.19	.76
233701CF	22-12-2054	5	1.50	1.31	.84
233710CF	22-12-2064	6	1.64	1.43	.92
233728CF	22-12-2084	8	1.86	1.51	1.05

KK® Series .100" (2.54mm) Female Housing and Crimp Contacts

- Voltage: 250V
- Current: phosphor bronze – 4.0A max., brass – 2.5A max.
- Contact resistance: 20mΩ max.
- Dielectric withstanding volt.: 1500VAC
- Insulation resistance: 50kMΩ

Housing Material:

- Contact insertion force: 1.5 lbs. max.
- Contact retention to housing: 8 lbs. min.
- Housing: red nylon, UL94V-0
- Operating temperature: 0 to 75˚C



234801CF



234721CF

Housing with Locking Ramp & Polarizing Ribs

Part No.	Product No.	Positions	1	10	100
234798CF	22-01-3027	2	$.29	$.17	$.10
234801CF	22-01-3037	3	.29	.21	.13
234819CF	22-01-3047	4	.31	.27	.17
234827CF	22-01-3057	5	.36	.31	.20
234835CF	22-01-3067	6	.42	.36	.23
234843CF	22-01-3077	7	.47	.41	.26
234851CF	22-01-3087	8	.54	.47	.30
234860CF	22-01-3097	9	.58	.50	.32
234878CF	22-01-3107	10	.65	.55	.35
234886CF	22-01-3127	12	.76	.66	.42

Housing with Locking Ramp

Part No.	Product No.	Positions	1	10	100
234704CF	22-01-2027	2	$.29	$.15	$.09
234712CF	22-01-2037	3	.29	.20	.12
234721CF	22-01-2047	4	.29	.24	.15
234739CF	22-01-2057	5	.33	.28	.17
234747CF	22-01-2067	6	.36	.32	.20
234755CF	22-01-2087	8	.47	.41	.26
234763CF	22-01-2097	9	.51	.44	.28
234771CF	22-01-2107	10	.57	.49	.31
234780CF	22-01-2127	12	.67	.58	.37

Crimp Contacts

234931CF



- Accommodates 22 to 30 AWG
- Material: brass or phosphor bronze
- Insulation range: 0.062" (1.58mm) diameter max.
- **Prepackaged: order in increments of 10, 100 or 1000**

234923CF: Brass with tin plating
234931CF: Brass with 15u select gold plating

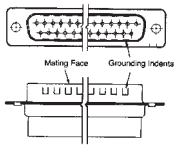
Part No.	Product No.	10	100	1000
234923CF	08-05-0114	$.065	$.048	$.029
234931CF	08-05-0102	.22	.17	.11

D-Subminiature Connectors

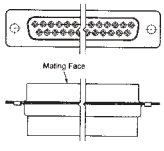
- Dielectric withstanding voltage: 1000VAC (one minute)
- Insulation resistance: 5000MΩ
- Nylon, flame retardant, 94V-0 rated, glass filled
- UL/CSA recognized and certified
- Low-cost, high performance, precision formed crimp contacts
- Standard mounting method with 0.120" diameter mounting holes

Crimp-Type Contacts

- Current rating: 1.2A to 3.7A
- Intermateable with any size 20 D-sub dimensionally complying with MIL-C-24308
- Crimp snap-in contacts allows loading of only the number of contacts being used



Plug



Receptacle

Zinc-Plated Shell


222666CF


222711CF

Part No.	Product No.	Cont.	Description	1	10	100
222640CF	205204-1	9	Plug	$.95	$.85	$.63
222658CF	205206-1	15	Plug	1.39	1.24	.92
222666CF	205208-1	25	Plug	1.19	1.10	.82
222674CF	205210-1	37	Plug	1.69	1.49	1.10
222682CF	205212-1	50	Plug	2.10	1.79	1.35
222691CF	205203-1	9	Receptacle	1.10	.99	.77
222703CF	205205-1	15	Receptacle	1.25	1.10	.82
222711CF	205207-1	25	Receptacle	1.05	.95	.71
222720CF	205209-1	37	Receptacle	1.69	1.49	1.10
222738CF	205211-1	50	Receptacle	2.10	1.79	1.69

Tin-Plated Shell


222818CF


222842CF

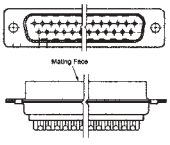

222922CF

Part No.	Product No.	Cont.	Description	1	10	100
222754CF	205204-3	9	Plug	$1.29	$1.15	$.85
222762CF	205206-2	15	Plug	1.49	1.29	.95
222771CF	207464-1	25	Plug	.94	.80	.61
222789CF	205210-2	37	Plug	1.69	1.49	1.10
222797CF	205204-4	9	Plug*	.83	.75	.55
222800CF	205206-3	15	Plug*	.99	.89	.65
222818CF	207464-2	25	Plug*	.88	.78	.58
222826CF	205210-3	37	Plug*	1.68	1.49	1.12
222834CF	205212-3	50	Plug*	1.79	1.59	1.19
222842CF	205203-3	9	Receptacle	.69	.59	.52
222914CF	205205-2	15	Receptacle	.88	.78	.58
222922CF	207463-1	25	Receptacle	.99	.89	.68
222931CF	205209-2	37	Receptacle	1.19	1.05	.78
222949CF	205211-2	50	Receptacle	2.10	1.79	1.35

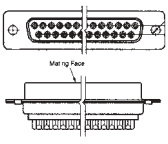
* With grounding indents

Solder-Cup Contacts

- Current rating: 1.2A to 3.0A
- Intermateable with other D-sub connectors
- One-piece 94V-0 rated plastic insert
- Preloaded duplex-plated solder-cup contacts
- Shields offer full EMI shielding and ESD insulation
- Anti-solderwicking contact design



Plug



Receptacle

Zinc-Plated Shell


222973CF


223044CF

Part No.	Product No.	Cont.	Description	1	10	100
222957CF	747904-4	9	Plug	$1.89	$1.59	$1.32
222965CF	747908-4	15	Plug	2.65	2.19	1.75
222973CF	747912-4	25	Plug	3.69	3.10	2.49
222981CF	747916-4	37	Plug	5.45	4.56	3.79
223036CF	747905-4	9	Receptacle	2.65	2.23	1.76
223044CF	747913-4	25	Receptacle	4.75	3.99	3.19

Tin-Plated Shell


223010CF


223079CF

Part No.	Product No.	Cont.	Description	1	10	100
222990CF	747904-2	9	Plug	$1.69	$1.55	$1.15
223001CF	747908-2	15	Plug	2.79	2.49	1.85
223010CF	747912-2	25	Plug	3.29	2.95	2.19
223028CF	747916-2	37	Plug	5.39	4.65	3.39
223052CF	747905-2	9	Receptacle	2.35	2.09	1.55
223061CF	747909-2	15	Receptacle	3.45	2.99	2.19
223079CF	747913-2	25	Receptacle	4.10	3.69	2.72
223087CF	747912-2	37	Receptacle	6.65	5.69	4.19

D-Sub Plastic Hoods for AMP D-Sub Connectors

- Cable clamp type: clam shell
- Cable exit angle: straight
- Standard clam shell length
- Body material, cable support gate, and cable clamp: thermoplastic
- Screw material: steel
- Screw plating: zinc


230893CF

Part No.	Product No.	Positions	1	10	100
230893CF	205729-1	9	$2.25	$1.85	$1.46
230906CF	205730-1	15	2.34	2.10	1.85
230914CF	205718-1	25	2.05	1.69	1.32
230922CF	205731-1	37	2.88	2.63	2.29
230931CF	205732-1	50	3.21	2.65	2.19

D-Sub Pin Insertion/ Extraction Tools


19094CF

19094CF: Plastic body; exchangeable tips

223327CF: Handle with .050" hex wrench & exchangeable tips


223327CF

Part No.	Description	1	10	100
19094CF	Red/white plastic body	$2.79	$2.49	$2.15
223327CF	AMP# 91285-1	13.99	12.49	12.49

D-Sub Crimp and Solder Contacts

- Pin material: brass; socket material: phosphor bronze
- Contact plating
- ***A:** Select – gold flash over nickel on entire contact, with additional gold (.000030) on mating end; ***B:** duplex – gold (.000030) on mating end, tin-lead on termination end, with entire contact nickel underplated; ***C:** gold flash over nickel on entire contact; ***D:** gold flash on mating end, tin-lead on termination end, with entire contact nickel underplated
- For use with AMP D-sub connectors (see left)
- **Prepackaged: order in increments of 10, 100 or 1000**


*Fig. 1 (male)


*Fig. 2 (female)

With Insulation Support

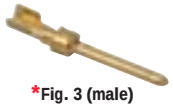

*Fig. 3 (male)


*Fig. 4 (female)

Without Insulation Support


*Fig. 5 (male)


*Fig. 6 (female)

Without Insulation Support

Male Crimp Contacts

Part No.	Product No.	Desc.*	AWG	10	100	1000
223095CF	1-66507-0	1C	28-24	$.24	$.17	$.12
223124CF	66682-4	1A	28-24	.28	.19	.14
223108CF	66507-9	1A	28-24	.18	.12	.09
223132CF	745254-7	1C	26-22	.25	.18	.128
223141CF	745254-6	1A	26-22	.28	.20	.14
223159CF	1-745254-6	1B	26-22	.25	.18	.13
223167CF	1-66506-0	1C	24-20	.16	.15	.12
223175CF	205202-7	3C	24-20	.24	.17	.14
223183CF	5-66506-9	1D	24-20	.21	.15	.13
223191CF	66506-9	1A	24-20	.16	.15	.10
223204CF	5-66506-7	1B	24-20	.24	.17	.12
223212CF	745229-4	3A	22-18	.26	.24	.19

Female Crimp Contacts

Part No.	Product No.	Desc.*	AWG	10	100	1000
223221CF	1-66505-0	2C	28-24	$.18	$.12	$.09
223239CF	66683-4	2A	28-24	.31	.22	.15
223247CF	745253-6	2A	26-22	.30	.20	.14
223255CF	1-66504-0	2C	24-20	.17	.15	.11
223263CF	205201-7	4C	24-20	.28	.23	.18
223271CF	5-66504-7	2D	24-20	.16	.12	.10
223280CF	205201-5	4A	24-20	.32	.26	.20
223298CF	66504-9	2A	24-20	.17	.15	.13
223301CF	6-66504-0	2B	24-20	.27	.18	.13

Male Solder Contact

Part No.	Product No.	Desc.*	AWG	10	100	1000
234982CF	66570-3	5A	28-24	$.22	$.12	$.11

Female Solder Contact

Part No.	Product No.	Desc.*	AWG	10	100	1000
223319CF	66569-3	6A	18 (max.)	$.27	$.21	$.19

Jameco's Low-Price Guarantee

We'll match the advertised price of any like product.

D-Subminiature Connector Hoods


15085CF Plastic


25620CF Metallized

- Use with D-sub solder cup and housing style connectors (hardware included)

D Series: plastic hood with strain relief (gray)
MD Series: metal coated plastic hood w/ strain relief
MH Series: die-cast metal hood with strain relief

Part No.	Mfr. Cross Ref. No.	Connector	1	10	100	1000
15721CF	DB9H	9-pin	$.49	$.45	$.39	$.35
25620CF	MDB9H	9-pin	.59	.49	.39	.35
147740CF	DB9MH	9-pin	1.45	1.29	1.15	.99
15018CF	DA15H	15-pin	.49	.45	.40	.35
25566CF	MDA15H	15-pin	.56	.44	.36	.31
15085CF	DB25H	25-pin	.45	.39	.35	.32
25603CF	MDB25H	25-pin	.59	.49	.42	.35
15106CF	DB25MH	25-pin	1.39	1.19	1.09	.89
15456CF	DC37H	37-pin	.59	.55	.45	.39
25611CF	MDC37H	37-pin	.75	.69	.59	.53
15659CF	DD50H	50-pin	.99	.85	.75	.65

25-Pin Dual Plastic Hood

Designed for custom applications requiring two D-sub connectors. Applications include custom jumper boxes and interconnects.


Shown assembled

Part No.	Description	1	10	100	500
34091CF	25-pin, plastic dual	$.95	$.85	$.75	$.59

4-40 Screw Hardware for D-Subminiature Connectors

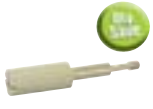
4-40 x .187" Jack Screws and Standoffs



108986CF



102795CF


125014CF

✳ **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Description	1	10	100	1000
196293CF	.252"L jack screw ✳		$.21	$.12	$.08
169931CF	.275"L jack screw ✳		.15	.13	.11
172603CF	.315"L jack screw ✳		.14	.11	.09
102816CF	.435"L jack screw	.49	.46	.41	.37
108986CF	.515"L jack screw	.55	.50	.45	.40
125014CF	4-40 x 1.65"L plastic beige thumbscrew	.39	.35	.28	.20
175636CF	.187"L standoff ✳		.15	.13	.096
102795CF	.236"L (6mm) standoff ✳		.21	.15	.10

4-40 Screw Sets





102808CF


16547CF

102808CF: 4-40 screw (.30"L) and retainer set
16547CF: 4-40 x .187" jack screw (.31"L thread), washer, lock washer, and nut set

- **Prepackaged: order in increments of 10, 100 or 1000**

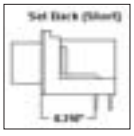
Part No.	Description	10	100	1000
102808CF	Screw/retainer set	$.35	$.30	$.20
16547CF	Screw/nut set	.31	.25	.17

D-Subminiature Connectors

- Metal shells are tin-plated for improved EMI/RFI shielding
- Insulation resistance: minimum 1000MΩ at 500VDC
- Dielectric withstanding voltage: 1000V (one minute)
- Current rating: 1A to 5A
- High temperature thermoplastic
- Insulation material: PBT

Right Angle PC Mount Connectors

0.318" Set Back



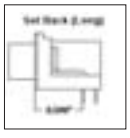
- Short style
- Lead length: .138"
- Lead spacing: .115"
- Shell: metal
- Current rating: 1A


15149CF

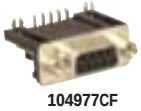
Part No.	Mfr. Cross Ref. No.	Cont.	Gender	1	10	100	500
104942CF	DB9P318	9	M	$.55	$.50	$.40	$.30
104951CF	DB9S318	9	F	.60	.55	.49	.45
71124CF	DA15P318	15	M	.69	.59	.55	.49
77956CF	DA15S318	15	F	.79	.69	.65	.45
168743CF	HDDB15S318*	15	F	.49	.42	.34	.31
71466CF	HDDB15S318*	15	F	.59	.53	.42	.31
15149CF	DB25P318	25	M	.79	.65	.55	.42
15181CF	DB25S318	25	F	.89	.79	.72	.65
71706CF	DC37P318	37	M	.99	.85	.72	.59
78182CF	DC37S318	37	F	1.15	.95	.69	.49

*High Density

0.590" Set Back



- Lead length: .178"
- Lead spacing: .104"
- Current rating: 1A
- Shell: Metal; except P/N 15763CF plastic
- Long style


104977CF

Part No.	Mfr. Cross Ref. No.	Cont.	Gender	1	10	100
104969CF	DB9P590	9	M	$.99	$.83	$.72
104977CF	DB9S590	9	F	~~$.99~~ .89	.79	.75
104993CF	DA15S590	15	F	.99	.85	.59
189624CF	DB25P590†	25	M	.85	.76	.69
105005CF	DB25P590	25	M	.99	.89	.79
105013CF	DB25S590	25	F	~~$1.35~~ 1.25	1.12	.99

† Without board tabs

IDC Ribbon Cable Connectors

- Current rating: 1 amp
- Insulation material: glass-filled polyester
- Temp range: -55°C to +120°C
- Contact material: phosphor bronze
- Terminates with standard D-type connectors
- Shell: MD: Metal; CD: Plastic (see mfr. cross ref. no.)


12431CF

Part No.	Mfr. Cross Ref. No.	Cont.	Gender	1	10	100
109225CF	MDB9P†	9	M	$1.35	$1.25	$1.09
12503CF	CDB9P	9	M	2.49	1.79	1.59
109217CF	MDB9S†	9	F	1.49	1.19	1.05
12520CF	CDB9S	9	F	2.59	2.35	2.09
117381CF	MDA15P	15	M	1.55	1.25	.69
12298CF	CDA15P	15	M	1.55	1.25	.75
116011CF	MDA15S	15	F	1.55	1.25	.85
12319CF	CDA15S	15	F	1.69	1.35	.79
115983CF	MDB25P	25	M	1.85	1.69	1.45
12335CF	CDB25P	25	M	1.89	1.69	1.29
115975CF	MDB25S	25	F	1.85	1.65	1.39
12431CF	CDB25S	25	F	1.95	1.79	1.39
115991CF	MDC37P	37	M	2.39	2.15	1.55
12466CF	CDC37P	37	M	3.09	2.65	1.99
116003CF	MDC37S	37	F	2.95	2.69	2.42
12482CF	CDC37S	37	F	3.49	2.99	2.25

† Require flat cable w/ .0625" centers

Solder-Cup Connectors


15114CF Front


15114CF Back

- Compatible with 24 AWG communications and 22 AWG solid cable, pg 125
- Shell: Metal

Part No.	Contacts	Gender	1	10	100	1000
15747CF	9	M	$.56	$.44	$.36	$.24
15771CF	9	F	.59	.49	.44	.31
15077CF	15HD*	M	.69	.59	.49	.31
164822CF	15HD*	F	.79	.69	.59	.39
15034CF	15	M	.55	.49	.42	.29
15051CF	15	F	.59	.49	.39	.24
15114CF	25	M	.99	.89	.79	.71
15157CF	25	F	.89	.80	.69	.61
203799CF	26HD*	M	.65	.58	.52	.52
203781CF	26HD*	F	.75	.68	.61	.55
15472CF	37	M	.99	.85	.79	.49
15499CF	37	F	1.19	1.05	.85	.49
15675CF	50	M	1.65	1.49	1.35	.99
15691CF	50	F	1.79	1.39	1.32	1.19

*High Density

Straight PC Mount Connectors

- Non-removable contacts
- 125 Vrms
- Current rating: 5 amps
- Operating temperature: -65°F to +250°F
- Shell: Metal


15122CF


15780CF

Part No.	Mfr. Cross Ref. No.	Cont.	Gender	1	10	100
111691CF	DB9PPCB	9	M	$.55	$.45	$.32
15780CF	DB9SPCB	9	F	.55	.45	.32
176760CF	DA15PPCB	15	M	.49	.39	.27
176751CF	DA15SPCB	15	F	.49	.44	.39
15122CF	DB25PPCB	25	M	.65	.59	.42
15165CF	DB25SPCB	25	F	.74	.55	.31
180021CF	DC37SPCB	37	F	.85	.72	.54

Crimp-Type Connectors and Pins

- Connectors: metal shell; removable male/female crimp pins
- Male/female pins: gold plated contact; tinned crimp tail
- Insertion/extraction tool: exchangeable tips
- Use 99442CF, pg 172 to crimp 43377CF, 43369CF


180890CF


38771CF


43369CF


19094CF

✳ **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Description	1	10	100	1000
73189CF	DB9 M housing ✳	$.49	$.39	$.31	$.19
73197CF	DB9 F housing ✳	.49	.39	.31	.19
73200CF	DA15 M housing ✳	.59	.53	.48	.43
73218CF	DA15 F housing ✳	.65	.59	.53	.47
180881CF	HDDB15 M housing* ✳	1.09	.98	.78	.58
180890CF	HDDB15 F housing* ✳	.89	.79	.72	.65
38789CF	DB25 M housing ✳	.56	.44	.36	.21
38771CF	DB25 F housing ✳	.55	.44	.31	.21
43377CF	M crimp pin ✳		.10	.09	.08
43369CF	F crimp pin ✳		.08	.07	.06
185421CF	M crimp pin (180881CF) ✳		.055	.045	.04
185412CF	F crimp pin (180890CF) ✳		.055	.05	.04
19094CF	Insertion/extraction tool for above pins (HT101)	2.79	2.49	2.15	2.15

* High Density

BNC Connectors and Adapters

- Frequency range: 0-4GHz
- Working voltage: 500V
- Contact plating: silver/gold
- Body plating: nickel/tin-lead
- Cable type:

223351CF: RG58/58A/58C/141/303/LMR, Belden 7806A
223360CF: RG55/141/142/223/400
223394CF: RG59/62/71/140/210/302
223474CF: RG59/62/140/210, Belden 8241/8263/8279/9209
223693CF: RG5/9/87A/214/313/325



Fig. 1 Fig. 2 Fig. 3

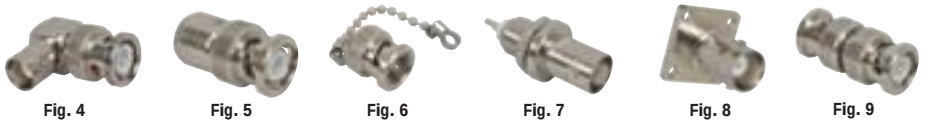


Fig. 4 Fig. 5 Fig. 6 Fig. 7 Fig. 8 Fig. 9



Fig. 10 Fig. 11 Fig. 12 Fig. 13 Fig. 14 Fig. 15

Part No.	Product No.	Fig.	Industry No.	Description	1	10	100
223351CF	31-2	1	UG-88/U	50Ω plug, straight, clamp/solder	$4.55	$3.45	$3.25
223431CF	31-202	1	UG-88C/U	50Ω plug, straight, solder cup	4.15	3.25	2.75
223360CF	31-5	2	UG-89/U	50Ω jack, straight, clamp/solder	5.99	4.95	4.15
223378CF	31-8	3	UG-274/U	50Ω/75Ω T-adapter, jack-plug-jack	12.59	9.49	8.39
223458CF	31-208	3	UG-274A/U	50Ω T-adapter, jack-plug-jack	10.49	7.99	6.79
223386CF	31-9	4	UG-306/U	50Ω right angle adapter, jack-plug	13.29	9.99	8.59
223466CF	31-209	4	UG-306A/U	50Ω right angle adapter, jack-plug	12.49	10.75	9.49
223394CF	31-12	5	UG-260/U	50Ω plug, straight, clamp	7.49	5.79	5.65
223474CF	31-212	5	UG-260B/U	50Ω plug, straight, clamp/solder	4.29	3.29	3.19
223415CF	31-17	6	CW-159/U	50Ω male shorting cap	7.59	5.75	4.59
223423CF	31-102	7	UG-657/U	50Ω bulkhead receptacle, straight, solder cup	6.15	5.29	4.79
223440CF	31-203	8	UG-290A/U	50Ω receptacle, straight/flange, solder cup	6.99	5.29	4.79
223482CF	31-218	9	UG-491A/U	50Ω in-series adapter, plug-plug	9.29	6.99	6.79
223491CF	31-219	10	UG-914/U	50Ω in-series adapter, jack-jack	5.39	3.99	3.49
223503CF	31-220H	11	UG-492A/U	50Ω in-series adapter, jack-jack	9.15	6.99	5.99
223554CF	31-3220	12	UG-492D/U	50Ω bulkhead adapter, straight, jack-jack	11.65	8.85	6.65
223511CF	31-221	13	UG-1094/U	50Ω bulkhead receptacle, straight, solder cup	2.55	1.95	1.65
223538CF	31-2221	14	UG-1094A/U	50Ω bulkhead receptacle, straight, solder cup	3.69	2.49	2.19
223520CF	31-236	13	UG-625B/U	50Ω bulkhead receptacle, straight, pin/pin	2.85	2.15	1.99
223685CF	5575	13	UG-625/U	50Ω bulkhead receptacle, solder	4.45	3.39	3.15
223693CF	6775	15	UG-959/U	50Ω right angle plug, clamp/solder	12.59	9.99	9.75

UHF Connectors and Adapters

- Frequency range: 0-300MHz
- Working voltage: 500V
- Contact plating: nickel & silver
- Cable type:

223600CF/223618CF/223677CF: RG8/9/87A/214/313/225
223651CF: RG58/141



Fig. 1 Fig. 2



Fig. 3 Fig. 4 Fig. 5 Fig. 6 Fig. 7 Fig. 8

Part No.	Product No.	Fig.	Industry No.	Description	1	10	100
223562CF	83-1AP	1	UG-646/U	In-series right angle adapter, jack-plug	$7.15	$6.49	$6.05
223571CF	83-1F	2	UG-363/U	In-series bulkhead adapter, socket-socket	13.49	10.49	10.29
223589CF	83-1J	3	PL-258	In-series straight adapter, jack-jack	6.99	5.99	5.29
223837CF	83-1T	4	M-358	In-series T-adapter, jack-plug-jack	11.19	8.99	8.75
223597CF	83-1R	5	SO-239	Non-constant impedance panel receptacle, solder cup	3.10	2.49	2.29
223669CF	83-798	5	SO-239A	Non-constant impedance panel receptacle, solder cup	5.25	3.99	3.59
223600CF	83-1SP	6	PL-259	Non-constant impedance plug, straight, solder-solder	3.69	2.79	2.39
223618CF	83-1SP-1050	7	PL-259	Non-constant impedance plug, straight, solder-solder	2.29	1.85	1.55
223677CF	83-822	7	PL-259	Non-constant impedance plug, straight, solder-solder	3.89	2.99	2.59
223651CF	83-765	8	UG-177/U	Hood for 83-1R, above	2.55	1.99	1.69

BNC Adapters



188411CF 188429CF 188402CF

- Frequency range: 0-4GHz with low reflection

188411CF: Straight jack-to-jack
188429CF: Jack-plug-jack
188402CF: Gasketed jack-to-jack

Part No.	Product No.	1	10	25	100
188411CF	31-219-RFX	$2.99	$2.66	$1.64	$1.49
188429CF	31-208-RFX	4.45	3.37	2.28	1.99
188402CF	31-220G-RFX	3.49	3.15	2.79	2.49

BNC 50Ω Cable Plugs

BNC 3-Piece

- Silver-plated
- Frequency range: 0-4GHz with low reflection
- Attachment (outer/inner): crimp/crimp

188306CF: RG58/184
188349CF: RG174/188/316



188306CF



188349CF

Part No.	Product No.	1	10	25	100
188306CF	31-320-RFX	$1.55	$1.28	$.99	$.90
188349CF	31-315-RFX	~~$2.49~~ 1.99	1.63	1.10	.96

Type N Crimp Connector

- Silver-plated
- RG58/141
- Attachment (outer/inner): crimp/crimp



Part No.	Product No.	1	10	50	100
188445CF	82-5375-RFX	$4.35	$3.29	$2.50	$2.25

SMA Brass Plug

- Frequency range: 0-18GHz
- Outer cable attachment: crimp
- Inner cable attachment: solder
- Construction: captive contact
- Type: crimp plug
- For RG174/U, RG188/U, and RG316/U cables



Part No.	Product No.	1	10	50
188488CF	901-9877-RFX	$2.49	$2.25	$1.99

RG Type Bulk Coaxial Cable



RG58/U & RG58A/U (50Ω):
nominal capacitance: 27pF/ft.;
center resistance: 10.4Ω/1kft. @ 77˚F
RG59/U (75Ω):
nominal capacitance: 19pF/ft.;
center resistance: 16.5Ω/kft. @ 77˚F
RG174/U (50Ω):
nominal capacitance: 30.8pF/ft.;
center resistance: 97Ω/kft. @ 77˚F

- **Prepackaged and priced in increments of 100' or 1000'**

Part No.	Description	100 ft.	1000 ft.
102226CF	RG58/U, for ethernet, oscilloscopes (solid 20 AWG)	$12.00	$90.00
116898CF	RG58A/U, for ethernet, oscilloscopes (stranded 20 AWG)	19.00	150.00
102218CF	RG59/U, for CATV & video patch cords (solid 22 AWG)	13.00	110.00
112037CF	RG174/U, for ethernet, oscilloscopes (stranded 26 AWG)	19.00	169.00

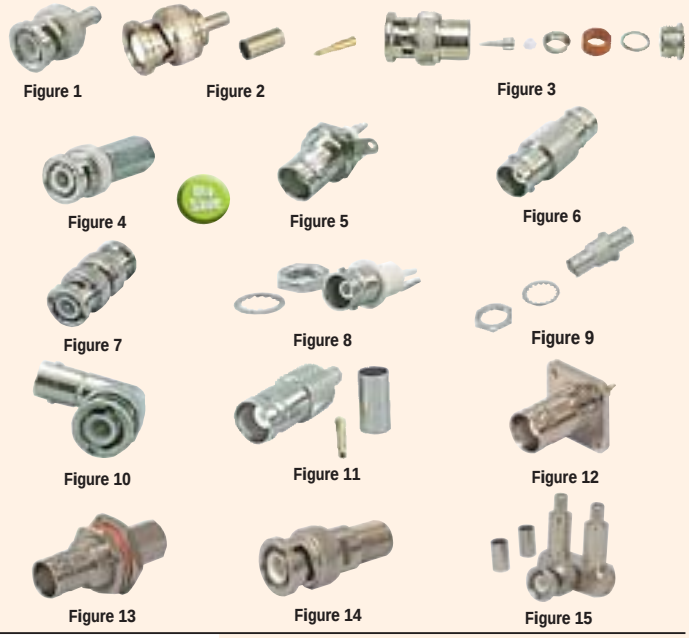
Interconnect

We carry major manufacturers – call for OEM PRICING.

BNC Coax Connectors

• Miniature, lightweight units designed to operate up to 11GHz and typically yield low reflection up to 4GHz

Part No.	Fig.	Description	1	10	100	500
71458CF	1	BNC male terminator (50Ω)	$1.55	$1.15	$.99	$.89
71790CF	1	BNC male terminator (75Ω)	1.35	1.09	.89	.73
102306CF	1	BNC male terminator (93Ω)	~~$.99~~ .36	.33	.29	.26
135618CF	2	BNC male with pin and ferrule (RG6)	.89	.69	.45	.39
71482CF	2	BNC male with pin and ferrule (RG58)	1.65	1.49	1.35	1.25
71271CF	2	BNC male with pin and ferrule (RG59/62)	1.39	1.25	.99	.75
112109CF	2	BNC male with pin and ferrule (RG174)	1.59	1.45	1.29	1.15
119394CF	3	BNC male clamp-on (RG59/62)	1.39	1.25	1.15	.89
108994CF	4	BNC male twist-on (RG58)	1.49	1.19	.95	.75
71781CF	4	BNC male twist-on (RG59/62)	1.09	.99	.89	.79
71589CF	5	BNC female panel mount (UG-1094A)	1.49	1.35	1.25	1.09
71909CF	6	BNC female/female coupler (UG-914)	1.29	.99	.85	.74
127343CF	7	BNC male/male coupler (UG-491B/U)	1.99	1.79	1.39	1.29
111561CF	8	BNC female isolated bulkhead	2.29	1.99	1.79	1.59
148224CF	9	BNC female bulkhead feed-thru.	1.99	1.79	1.59	1.39
148232CF	9	BNC female isolated bulkhead feed-thru.	2.49	2.25	1.99	1.79
127351CF	10	BNC M-F right angle (DG-306B/O)	2.49	2.19	1.85	1.59
160928CF	11	BNC female, crimp type (RG58)	1.25	1.09	.99	.89
161921CF	11	BNC female, crimp type (RG174)	1.49	1.35	1.19	1.05
174289CF	12	BNC female chassis mount	~~$1.45~~ 1.19	.98	.88	.79
174297CF	13	BNC female twist-on bulkhead	2.25	1.95	1.79	1.59
174254CF	14	BNC male to F connector female	1.99	1.59	1.45	1.19
207183CF	15	BNC male to RG58/59 crimp on	~~$4.99~~ 3.99	3.59	3.25	2.95



BNC PCB Connectors

• **146528CF:** Ideal for applications where multiple insertions require a connector which can endure the stress of high torque
• **146510CF/161656CF:** Maintains matching impedance at 50Ω & 75Ω. Ideal for LAN cards & precision video



Part No.	Description	Length (L)	1	10	100	500
146528CF	BNC straight metal	.719"	$2.79	$2.55	$2.29	$2.05
210884CF	BNC straight/panel mount metal	.830"	2.29	1.99	1.79	1.59
146510CF	BNC right-angle plastic insulation	1.37"	~~$2.29~~ 1.95	1.75	1.49	1.25
161656CF	BNC right-angle metal	.861"	2.29	1.99	1.79	1.59



BNC Adapters



Application: gen. purpose coax T-adapter; ThinNet/Ethernet LAN adapter • Silver-plated

Part No.	Description	1	10	100	500
118594CF	Male to female/female T-adapter	$2.39	$2.15	$1.75	$1.25
207108CF	Quad female adapter	3.99	3.49	2.99	2.49
207095CF	Female to male/male T-adapter	6.99	6.25	5.59	4.99
72629CF	Female to female/female T-adapter	2.49	2.25	1.99	1.69
207087CF	Female to male/female T-adapter	9.95	8.95	6.45	5.79
207132CF	Female to bulkhead female (rt. angle)	~~$4.95~~ 4.59	4.15	3.75	3.35
100589CF	Male to female/female T-adapter (90°)	4.95	4.45	3.99	3.65
100597CF	Male to female/female T-adapter (180°)	5.99	5.39	4.85	3.99
207116CF	Male to female/female/female T-adapter	~~$7.95~~ 7.19	6.49	5.85	5.25
117461CF	Male to female/female F-adapter (90°)	4.29	3.89	3.49	2.99
207124CF	Male/male to female/female T-adapter	~~$4.99~~ 4.49	4.05	3.65	3.29
207167CF	RCA female to BNC female	1.99	1.79	1.59	1.39
114788CF	RCA female to BNC male adapter	1.35	1.05	.99	.98
207175CF	RCA male to BNC male	1.99	1.79	1.59	1.39
114753CF	RCA male to BNC female adapter	1.59	1.45	1.29	1.19
114770CF	BNC female to "F" connector male adapter	1.79	1.59	1.39	1.19
207141CF	3.5mm mono male to BNC female	1.69	1.49	1.59	1.39
207159CF	2.5mm mono male to BNC female	1.99	1.79	1.59	1.39



BNC Coax Cables



• Male coax connectors

RG6 75Ω Cables

Part No.	Description	1	10	50	100
176794CF	3' BNC to BNC	$3.95	$3.55	$3.19	$2.89
176815CF	6' BNC to BNC	4.95	4.49	4.05	3.35

RG58/U 50Ω Cables

• For Ethernet networks, oscilloscopes

Part No.	Mfr. Cross Ref. No.	Lgth (ft.)	1	10	50	100
181307CF	CRG58-1RR	1	$3.65	$3.29	$2.95	$2.75
102314CF	CRG58-1	1.5	3.99	3.49	2.99	2.49
11404CF	CRG58-3	3	4.29	3.89	3.49	3.15
102331CF	CRG58-6	6	4.39	3.99	3.59	3.19
152311CF	RG58MF-6*	6	2.95	2.59	2.25	1.95
180822CF	CRG58-10	10	4.49	3.59	2.69	1.89
102349CF	CRG58-12	12	4.95	4.49	3.99	3.39
169818CF	CRG58-15	15	5.49	4.95	3.95	2.95
102357CF	CRG58-25	25	6.49	5.19	3.89	2.75
102365CF	CRG58-50	50	9.49	8.55	7.69	6.89
102381CF	CRG58-100	100	13.49	12.15	9.75	7.15

*152311CF has male and female coax connectors

RG59/U 75Ω Cables

• For CATV and video patch cords

Part No.	Mfr. Cross Ref. No.	Lgth (ft.)	1	10	50	100
86471CF	CRG59-1	1.5	$2.99	$2.69	$2.45	$2.19
85542CF	CRG59-6	6	3.75	3.39	2.99	2.75
226253CF	BZA3636	8	4.49	3.95	3.65	3.29
102373CF	CRG59-12	12	5.49	4.95	4.45	3.99

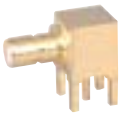
RG174/U 50Ω Cables

• For Ethernet networks, oscilloscopes

Part No.	Mfr Cross Ref. No.	Lgth (ft.)	1	10	50	100
111472CF	RG174U3	3	$3.85	$3.49	$3.15	$2.85
111481CF	RG174U6	6	4.59	4.15	3.75	3.35

SMB PCB Connector

- 0-4GHz electrical performance
- Gold plated brass
- Insulation: teflon
- Contact: beryllium copper



Part No.	Description	1	10	50
167311CF	Fem. right angle PCB ..	$4.45	$3.89	$3.25

SMB PCB Jack Connectors



172363CF



172371CF

- For use with RG-174 cable
- 50Ω crimp type • Gold plated
- Use with crimping tool P/N 114534CF, pg 172

Part No.	Description	1	10	50
172363CF	Bulkhead crimp jack	$3.49	$2.95	$2.49
172371CF	Cable crimp plug	4.29	3.89	3.49

SMA/SMB 50Ω Coax Cables



Fig. 1

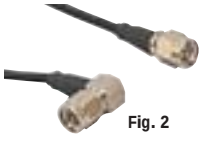


Fig. 2



Fig. 3

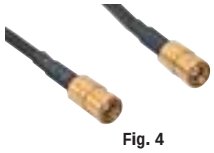


Fig. 4

Fig. 1: SMA male to SMA male
Fig. 2: SMA male to SMA right angle male
Fig. 3: SMA right angle male to SMA right angle male
Fig. 4: SMB male to SMB male

Part No.	Cable	Fig.	Lgth (ft.)	1	10	50
159370CF	RG58	1	2	$4.49	$3.99	$3.49
159396CF	RG58	1	6	5.49	4.89	4.19
169800CF	RG174	1	0.5	5.59	4.99	4.55
163854CF	RG174	1	1	4.49	3.95	3.39
153381CF	RG174	1	2	4.95	4.29	3.39
153390CF	RG174	1	4	5.49	4.75	4.29
159450CF	RG174	1	4	6.79	6.15	5.55
175126CF	RG174	2	0.5	4.49	3.95	3.49
175134CF	RG174	2	1	4.95	4.25	3.75
175142CF	RG174	3	0.5	5.75	5.25	4.49
175151CF	RG174	3	1	6.25	5.75	4.75
175169CF	RG174	4	0.5	4.25	3.19	2.25
175177CF	RG174	4	1	5.29	4.79	3.95

F-Type 75Ω Coax Cable

- Low signal loss
- Strain relief
- Male to male F-type



Part No.	Cable	Lgth (ft.)	1	10	50	100
85585CF	RG59	3	$2.39	$2.15	$1.72	$1.29

30-Day Money-Back Guarantee

If you're not satisfied, we'll take it back!

Details on page 226.

SMA Connectors, Adapters and Couplers



157972CF



153365CF



145381CF



145373CF



153285CF



159530CF



160021CF



160012CF



188509CF



188525CF

- Application: cellular phone, data communication, instrumentation, and video • 50Ω impedance
- Frequency range: 0-18GHz • Temperature range: -65˚C to 165˚C • Plating: gold and nickel

Connectors

Part No.	Description	Cable Type	Plated	1	10	50	100
157972CF	SMA 50Ω crimp type male plug connector	RG58	Gold	$3.99	$3.59	$3.29	$2.99
153365CF	SMA 50Ω crimp type male plug connector	RG174	Gold	4.39	3.95	3.55	3.19
145381CF	SMA straight female PCB mount connector, 4 legs	—	Gold	5.25	4.75	4.25	3.49
145373CF	SMA 90˚ female PCB mount connector, 4 legs	—	Gold	7.39	6.65	5.95	5.39
153285CF	SMA bulkhead solder female w/ washer, rear mount	RG58/174	Gold	3.49	3.15	2.85	2.59
159530CF*	SMA female panel mount conn., 4 mounting holes	RG58/174	Gold	2.95	2.65	2.35	2.10
160021CF*	SMA female panel mount conn., 2 mounting holes	RG58/174	Gold	3.99	3.59	3.25	2.95
160012CF	Panel mount feed thru connector female – female	—	Nickel	4.99	4.49	3.99	3.49
188509CF	SMA PCB straight jack	—	Gold	3.69	3.35	2.99	2.69
188525CF	SMA PCB right angle jack	—	Gold	5.95	4.95	3.79	3.35

*159530CF/160021CF: Solder cup

SMA to BNC Adapters



153453CF



159468CF



153592CF



159476CF

Part No.	Description	Cable Type	Plated	1	10	50	100
153453CF	SMA female to BNC male adapter	—	Nickel ...	$2.49	$2.25	$1.99	$1.79
159468CF	SMA female to BNC female adapter	—	Nickel	2.69	2.45	2.19	1.99
153592CF	SMA male to BNC male adapter	—	Nickel	3.99	3.59	3.19	2.89
159476CF	SMA male to BNC female adapter	—	Nickel	2.99	2.69	2.45	2.19

Couplers



153293CF



161277CF



161293CF



161306CF

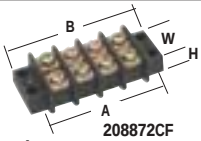
Part No.	Description	Cable Type	Plated	1	10	50	100
153293CF	SMA straight coupler female – jack-to-jack	—	Gold	$3.85	$3.39	$2.19	$1.79
161277CF	3-way coupler, 1 male – 2 female	—	Gold	3.49	3.15	2.85	2.45
161293CF	Straight coupler male – male	—	Gold	3.65	3.29	2.95	2.75
161306CF	Right angle coupler male – female	—	Gold	4.99	4.49	3.99	3.65

Double Row Terminal Blocks

- Wire gauge range: 12-18 AWG
- Terminals: brass tin plated
- Insulation withstanding voltage: 2000VAC min.
- Body Material: black thermoplastic (UL94V-0)
- Screws: steel nickel plated
- Insulation resistance: 1000MΩ or more at 500VDC

10A @ 600V

- Screw size: M3.0
- Width (W): 19.5mm
- Height (H): 11.9mm



208872CF

Part Number	Product Number	Poles	Dimensions A"	B"	1	10	50
208856CF	GGE-10-4P	4	47.5	55	$.99	$.89	$.79
208864CF	GGE-10-6P	6	64.5	74	1.39	1.25	1.15
208872CF	GGE-10-8P	8	95	102.5	1.69	1.59	1.49
208899CF	GGE-10-10P	10	104.5	112	2.39	2.15	1.89
208881CF	GGE-10-12P	12	123.5	131	2.79	2.49	2.25

20A @ 600V

- Screw size: M3.5
- Width (W): 22.0mm
- Height (H): 13.2mm



207571CF

Part Number	Product Number	Poles	Dimensions A"	B"	1	10	50
207538CF	GGE-20-4P	4	54.5	63.5	$1.39	$1.25	$1.10
207546CF	GGE-20-6P	6	76.3	85.3	1.99	1.79	1.59
207554CF	GGE-20-8P	8	98.1	107.1	2.59	2.35	2.15
207562CF	GGE-20-10P	10	119.9	128.9	3.29	2.99	2.69
207571CF	GGE-20-12P	12	141.7	150.7	3.59	3.19	2.79

European Terminal Blocks

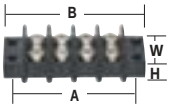


215010CF

- Number of poles: 12
- 1.2mm raised base
- Working temperature: 230˚F (110˚C)
- Material: Polyamide 66 (nylon 66), UL94V2, natural • Voltage: 600V
- Terminal insert: brass metal alloy, nickel plated
- Wire protector: stainless steel spring
- Screws: zinc plated, yellow chromed

Part No.	Prod. No.	Amps	AWG	1	10	100
215010CF	PA8H	20A	12-22	$1.79	$1.59	$1.29
215028CF	PA10H	30A	10-22	1.89	1.69	1.39
215036CF	PA12H	35A	10-22	2.59	2.29	1.99

KULKA® 601 GP Series Double Row Terminal Blocks



188699CF



188672CF

- Base: general purpose phenolic; 150˚C
- Screws: #6-32, binder head, phillips-slot
- Terminals: brass plated • Width (W): 1.12"
- .437" (11 mm) centers • Height (H): .50"
- 1100Vrms; 20A ratings; for 14-16 AWG wires
- Open block design
- UL/CSA/CE approved

Part Number	Product Number	Poles	Dimensions A"	B"	1	10	50
188699CF	601GP4	4	2.19	2.50	$1.69	$1.49	$1.35
188681CF	601GP6	6	3.06	3.38	2.39	2.19	1.89
188672CF	601GP8	8	3.94	4.25	2.95	2.75	2.49
188664CF	601GP10	10	4.81	5.13	3.49	3.25	2.95
188701CF	601GP12	12	5.69	6.00	5.49	4.95	3.95

.197" (5mm) Terminal Blocks

- Materials: housing: polyimide; solder: tin plated brass
- Lead spacing: .197"
- Wire range: 12-24 AWG
- Contact rating: 300V @ 10A
- PC mount
- Insulation resistance: 500MΩ or more @ 500V
- Modular housing: end-to-end stackability
- Terminals interlocking with same series

DT Series

DT128 Type (Side Entry)

- Block width & height: .40" x .55"

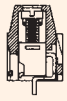


Fig. 1



99397CF

Part No.	Fig.	Term.	Block Lgth	1	10	100	1000
99426CF	1	2	0.4"	$.72	$.55	$.44	$.40
99397CF	1	3	0.6"	.99	.89	.79	.59

EK500 Series



160784CF



161066CF

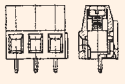


Fig. 2

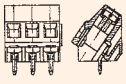


Fig. 3

EK500V Type (Side Entry)

- Block width & height: .40" x .55"

Part No.	Fig.	Term.	Block Lgth	1	10	100	1000
160784CF	2	2	0.4"	$.65	$.55	$.45	$.39
160792CF	2	3	0.6"	.95	.85	.75	.69

EK500A Type (45° Entry)

- Block width & height: .48" x .61"

Part No.	Fig.	Term.	Block Lgth	1	10	100	1000
161066CF	3	2	0.4"	$.75	$.65	$.49	$.39
161058CF	3	3	0.6"	.95	.85	.75	.69

Cinch Double Row Terminal Blocks

- Voltage rating: 250VAC RMS max.
- Insulation: molded mono block, general purpose phenolic, black, UL rated 94V-1
- Eyelet material: brass with nickel plating
- Screw material: steel with nickel over copper flash plating
- Solder terminal material: brass with electro-tin plating



230990CF



231378CF

140 Series 15A

- 3750-watts per terminal max.
- 16 AWG wire max. • Size: 0.88"W x 0.41"H
- Screw: 5-40 x 3/16" • Density: .375"

Part No.	Prod. No.	Pos.	Length	1	10	100
230973CF	2-140	2	1.41"	$.99	$.89	$.74
230981CF	3-140	3	1.78"	1.29	1.15	.95
230990CF	4-140	4	2.16"	1.45	1.29	1.05
231001CF	5-140	5	2.53"	1.59	1.44	1.18
231010CF	6-140	6	2.91"	1.99	1.79	1.48
231028CF	7-140	7	3.28"	2.19	1.95	1.59
231036CF	8-140	8	3.66"	2.49	2.24	1.83
231044CF	9-140	9	4.03"	2.79	2.49	2.03
231052CF	10-140	10	4.41"	3.25	2.89	2.35
231061CF	12-140	12	5.16"	3.55	3.15	2.59

141 Series 20A

- 5000-watts per terminal max.
- 14 AWG wire max. • Size: 1.13"W x 0.5"H
- Screw: 6-32 x 1/4" • Density: .438"

Part No.	Prod. No.	Pos.	Length	1	10	100
231351CF	2-141	2	1.63"	$.99	$.85	$.72
231360CF	3-141	3	2.10"	1.69	1.45	1.09
231378CF	4-141	4	2.50"	1.79	1.59	1.25
231386CF	5-141	5	2.94"	1.85	1.64	1.33
231394CF	6-141	6	3.38"	1.99	1.75	1.45
231407CF	7-141	7	3.81"	2.49	2.25	1.85
231415CF	8-141	8	4.25"	2.79	2.35	1.94
231423CF	9-141	9	4.69"	2.99	2.59	2.19
231431CF	10-141	10	5.13"	3.19	2.79	2.29
231440CF	12-141	12	6.00"	3.59	3.29	2.69



See page 124 for Cable Ties.

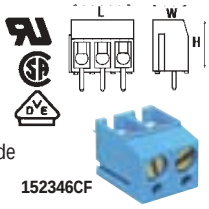
Over 99% of our products are in stock!

We'll Send It Today!

Just place your order by 6PM EST for same business day shipment.

.200" (5.08mm) Vertical Terminal Blocks

Side Entry



152346CF

- Rated voltage (UL): 250V
- Rated current: 15A
- Wire size: 14-22 AWG
- PCB hole diameter: .050"
- Spacing: .200"
- Insulating material: polyimide
- Terminal block: copper zinc
- Wire guard: copper nickel

Part No.	Term.	Size (L"xW"xH")	1	10	100	1000
152346CF	2	.42 x .35 x .49	$.65	$.55	$.45	$.39
152354CF	3	.62 x .35 x .49	$.47	.44	.39	.30

.197" (5mm) Vertical Terminal Blocks

Side Entry

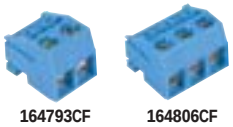


189675CF

- Rated voltage (UL): 250V
- Rated current: 15A
- Wire size: 22-14AWG
- PCB hole diameter: .050"
- Spacing: .197"
- Terminal block: copper zinc

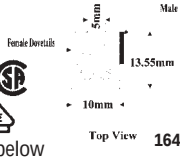
Part No.	Term.	Size (L"xW"xH")	1	10	100	1000
189675CF	2	.42 x .30 x .37	$.79	$.71	$.64	$.58
189667CF	3	.61 x .30 x .37	.89	.80	.72	.61

.197" (5mm) Terminal Blocks



164793CF 164806CF

- Screw size: M2.6
- Rated current: 10A; 300VAC
- Insulation resistance: >500MΩ @ 500VDC
- PCB hole diameter: 1.8mm
- Wire range: 14-24 AWG
- Materials: cage clamp/ terminal/ pin header – tin plated brass
- Use with P/N 164814CF, below



164793CF

Part No.	Term.	Size (L"xW"xH")	1	10	100	1000
164793CF	2	.40 x .54 x .43	$.59	$.53	$.47	$.42
164806CF	3	.60 x .54 x .43	.84	.76	.62	.54

.197" (5mm) Male Header



- Snap apart to fit your application • Spacing: .197"
- Contact pin: tin plated brass • 0.05" round posts
- Use with 164793CF & 164806CF, above • 24-pin

Part No.	Mfr. Cross Ref. No.	1	10	100
164814CF	TBH24	$2.25	$1.95	$1.75

entrelec DIN Rail-Mounted Terminal Blocks

Foot snaps onto standard DIN and DIN 2 rails. Terminals are positively retained on rails, but can be removed without disturbing adjacent units.



185914CF

- Molded thermoplastic
- Compression clamp
- Spacing 6mm (0.238")
- 22-12 AWG wire



185965CF

Sold in 1 meter (39") length

Part No.	Product No.	Type	1	10	100
185914CF	011511607	M4/6	$1.25	$1.09	$.99
185965CF	017322005	PR30	7.19	6.49	5.85

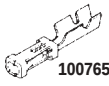
.100" Non-Polarized Connector Housings and Crimp Pins

- Mates with .025" square post on pattern of .100" centers (male headers, see pg 141)
- Current rating: 1A • Pin material: brass/tin plated
- Pin wire gauge: 26-22 AWG • Plastic
- Temperature rating: -55°C to +105°C
- Use 159265CF pin crimper, pg 172 and 100765CF below

✳ **Prepackaged: order in increments of 10, 100 or 1000**

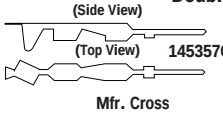
Single Row


103190CF

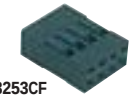

100765CF

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
100811CF	SCH2	2	✳	$.23	$.21	$.17
157382CF	SCH3	3	✳	.24	.22	.18
100802CF	SCH4	4	~~$.29~~ ✳	.25	.23	.19
163686CF	SCH5	5	✳	.27	.25	.22
103211CF	SCH6	6	✳	.31	.27	.21
103202CF	SCH8	8	✳	.35	.29	.25
103190CF	SCH10	10	.42	.39	.36	.31
103181CF	SCH20	20	.49	.45	.39	.35
103157CF	SCH36	36	.49	.45	.39	.35
100765CF	FCH1	Female pin	✳	.11	.09	.06
145357CF	MCH1	Male pin	✳	.15	.135	.12

Double Row



145357CF


103253CF

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
103253CF	DCH8	8	$.59	$.53	$.45	$.39
157420CF	DCH10	10	.69	.62	.55	.49
157438CF	DCH14	14	.73	.71	.69	.59
103237CF	DCH16	16	.79	.71	.57	.43
103229CF	DCH20	20	.99	.89	.79	.69
157462CF	DCH40	40	1.09	.99	.89	.75
157471CF	DCH50	50	.65	.59	.53	.47
100765CF	FCH1	Female pin	✳	.11	.09	.06
145357CF	MCH1	Male pin	✳	.15	.135	.12

USB-A & B Connectors and Pins

1.0 and 2.0


161023CF
USB-A


174051CF
USB-B


174060CF (USB-B)


230965CF

174060CF:
USB-A & B (2.0) Male Connector
- 3-part housing: tin plate over brass and glass fiber
- 4-pins (P/N 159724CF) required per USB connector

161023CF/230949CF/174051CF/230957CF:
USB-A & B (1.0 & 2.0) Female Connectors
- PC mount right angle with board locks

230965CF: Male Crimp Pin
- Pin for P/N 174060CF (4 required)
- Contact: gold
- Use P/N 159265CF for crimping tool, pg 172

✳ **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Description	1	10	100	1000
161023CF	USB-A 1.0 conn. (F)	$.79	$.69	$.62	$.56
230949CF	USB-A 2.0 conn. (F)	.99	.85	.55	.42
174060CF	USB-B 2.0 conn. (M)	.79	.69	.62	.56
174051CF	USB-B 1.0 conn. (F)	.89	.75	.45	.35
230957CF	USB-B 2.0 conn. (F)	.99	.85	.55	.42
230965CF	Crimp pin (M) for 2.0	✳	.125	.09	.065

.100" Low Profile Keyed Shrouded Headers and Connector

CD-ROM 4-Pin Headers and Connector


152741CF


152725CF


152733CF

- Voltage rating: 250V AC/DC
- Current rating: 3A AC/DC
- Insulation resistance: 1000MΩ min.
- Connector material: PBT, 30% glass
- Header material: PBT + 30% glass
- Withstanding voltage: 1000V AC/minute
- Pin material: tin-plated brass
- Recommended crimp tool P/N 99442CF, pg 172

✳ **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Description	1	10	100	1000
152741CF	Straight header	$.45	$.39	$.35	$.29
152725CF	Right angle header	.55	.49	.45	.39
152733CF	Single w/ latch†	~~$.55~~ .43	.37	.22	.16
181673CF	Female pins	✳	.11	.08	.06

† P/N 152733CF requires 4 pins (P/N 181673CF)

.100" DIP Header Plugs

- Gold-plated leads
- Header plugs: keyed corner to indicate pin 1
- U-shaped pin termination for easy component attachment
- Lead length: .188" • 0.1" spacing between leads



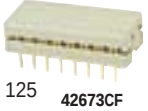
37129CF

Part No.	Mfr. Cross Ref. No.	Width	Pins	1	10	100
104336CF	8HP	0.3"	8	$.79	$.67	$.57
37129CF	14HP	0.3"	14	1.19	.99	.89
37330CF	16HP	0.3"	16	1.35	1.25	1.09
38578CF	20HP	0.3"	20	1.49	1.35	1.19

* 134922CF is tin-plated

.100" IDC DIP Flat Cable Plugs

- Mates with standard 14, 16, 20, 24, 26, 28 & 40-pin DIP sockets with 0.1" spacing
- Plastic with gold-plated contacts
- Uses 28 AWG flat ribbon cable, pg 125
- Current rating: 1 amp


42673CF

Part No.	Mfr. Cross Ref. No.	Width	Contacts	1	10	100	500
42657CF	609-14	0.3"	14	$.49	$.40	$.35	$.29
42673CF	609-16	0.3"	16	.55	.45	.35	.30
104096CF	609-20	0.3"	20	.69	.62	.55	.49
42690CF	609-24	0.6"	24	.79	.71	.64	.59
99670CF	609-28	0.6"	28	.89	.80	.72	.59
42711CF	609-40	0.6"	40	1.15	1.05	.95	.85

Card-Edge Connectors

- Fits all PC boards • .054" to .070" thick

Solder Eyelet .140" Spacing Between Rows

- Contact centers: .156" • With mounting ears

Part No.	Position	Contacts	1	10	100
39116CF	22/44	Gold	$2.95	$2.65	$2.38

Solder Tail .200" Spacing Between Rows

- Contact centers: .100"
- Without mounting ears


40694CF

Part No.	Position	Contacts	1	10	100
40694CF	31/62	Tin (PC/AT)	$.93	$.82	$.65
42091CF	49/98	Tin (AT)	~~$1.09~~ .89	.59	.39

Fiber Optic Infrared Detectors

- Mates with standard 1000µm core jacketed plastic fiber cable
- Connector-less fiber termination and connection
- Inexpensive plastic connector housing
- Compatible with LED emitters, below
- Interference-free transmission from light-tight housing
- Internal micro-lens for efficient coupling


169990CF


169981CF

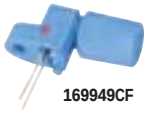
169990CF: TTL compatible output infrared detector D95T
169981CF: TTL open-collector output infrared detector D96

Part No.	Color Dot	Peak Wavelgth. Sensitivity	1	10
169990CF	Yellow	800nm	$5.75	$4.69
169981CF	White	850nm	6.95	6.25

Infrared and Visible Light Fiber Optic LED Emitters

- Mates with standard 1000µm core jacketed plastic fiber cable (recommend P/N 171272CF, below)
- Internal micro-lens for efficient coupling
- Connector-less fiber termination and connection
- Interference-free transmission from light-tight housing
- Excellent linearity
- Compatible with fiber optic photo detectors, above


169965CF


169949CF

Peak Wavelength Sensisitivity:
169957CF: 950nm, Vf=1.7V max @ 50mA
169965CF: 660nm, Vf=1.8V max @ 50mA
169949CF: 660nm, Vf=1.8V max @ 50mA

Part No.	Description	Color Dot	1	10
169957CF	Fiber optic LED E91A	Blue	~~$4.95~~ $2.99	$2.49
169965CF	Fiber optic LED E96	Pink	5.35	4.89
169949CF	Fiber optic LED E97	Red	5.75	4.75

10' Fiber Optic Cable

- 1000µm core jacketed plastic fiber optic cable (10')



Part No.	Description	1	10
171272CF	10' fiber optic cable	$6.95	$6.25

For Fiber Optic Kits, see page 224.



See the yellow and green highlighted items.

Jameco Special Values!

Details on page 3.

DIN and Mini DIN Plugs and Receptacles


177236CF


15886CF

- Solder barrels including strain relief
- See page 125 for cable

Part No.	Pins	Type	1	10	100
142279CF	4	Mini plug	$.79	$.68	$.53
142261CF	6	Mini plug	.89	.77	.59
177244CF	6	Mini receptacle	.99	.85	.69
111878CF	8	Mini plug	.99	.89	.74
177236CF	8	Mini receptacle	1.09	.93	.69
15878CF	5	DIN plug	.52	.44	.33
180873CF	5	DIN receptacle	.52	.45	.34
15886CF	6	DIN plug	.59	.50	.39
15894CF	8	DIN plug	.65	.56	.43

DIN Female Sockets

- Metal body
- Panel mount with solder lugs


15851CF

Part No.	Mfr. Cross Ref. No.	# of pins	1	10	100	500
15843CF	DINJ5	5	$1.29	$1.15	$1.05	$.79
15851CF	DINJ6	6	1.39	1.25	1.15	.99
15860CF	DINJ8	8	1.49	1.35	1.15	1.05

Right Angle DIN Female Sockets

- Set back: 0.5"
- PC mount contacts

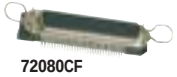
140791CF/119474CF: Plastic/metal body
29399CF: Plastic body


29399CF

Part No.	Mfr. Cross Ref. No.	# of pins	1	10	100	500
140791CF	MDR4S	4 (mini)	$.69	$.59	$.46	$.34
119474CF	MDR6S	6 (mini)	.75	.68	.54	.40
207722CF	MDS8100	8 (mini)	.99	.89	.79	.69
29399CF	RD5	5	.59	.53	.40	.36

PCB Right Angle Centronics Connectors


72151CF


72080CF

- Solder-type contacts
- Space between rows: .164"
- Space between pins: 0.1"
- Metal body
- PC mount

Part No.	Description	1	10	100
72151CF	36-contact female	$3.55	$3.19	$2.87
72080CF	50-contact female	4.95	4.45	3.99

IDC Centronics Connector

- Contact material: gold plated phosphor bronze; plastic casing
- Current rating: 1 amp
- Temp. rating: -55°C to +105°C
- Use 73251CF IDC crimping tool, pg 172



Part No.	Mfr. Cross Ref. No.	Description	1	10	100
13848CF	CEN36M	36-contact male	$1.75	$1.55	$1.39

SCSI-III Half-Pitch IDC Connector



- Connectors are high-density D-sub

SALE

Part No.	Description	1	10	50
139061CF	68-pin male SCSI-III ~~$3.95~~	$2.15	$1.95	$1.75

.100" IDC Plug Connectors

Double Row

- .100" x .100" grid
- Plastic
- Shrouded header w/o mounting ears
- Contact: gold-plated phosphor bronze
- Use with IDC socket for connectors, right

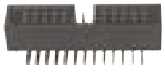

29217CF

Part No.	Cross Ref. No.	Contacts	1	10	100
29188CF	P40	40	$1.95	$1.75	$1.49
29217CF	P50	50	1.95	1.75	1.49

.100" Low-Profile Male Shrouded Headers

- Rating: 1A (max.) @ 250VDC
- Contact resistance: 15mΩ max.
- Features: UL recognized, CSA certified; .025" square post mates with sockets on .100" x .100" grid
- Contact: phosphor bronze, gold plated
- Use with IDC socket connectors, above


68179CF


211182CF

Straight Male Headers

Part No.	Description	1	10	100	1000
67811CF	10-pin	$.39	$.35	$.32	$.28
68179CF	16-pin	.44	.40	.35	.32
68291CF	20-pin	.49	.47	.39	.23
68371CF	26-pin	.54	.42	.35	.21
68582CF	34-pin	.79	.65	.46	.31
181104CF	40-pin	.75	.60	.45	.315

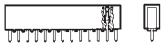
Right Angle Male Header

Part No.	Description	1	10	100	1000
211182CF	26-pin	$.45	$.40	$.37	$.35

.100" (2.5mm) Female Header Receptacles

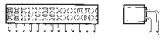
- Gold plated contacts
- 0.1" contact center

Vertical Mount (Top Entry)



Part No.	Contacts	Type	1	10	100	500
70754CF	8	Single row	$.59	$.53	$.43	$.35
200782CF	12	Single row	.79	.59	.45	.42
70720CF	16	Double row	.89	.79	.72	.65
70826CF	20	Double row	.99	.87	.76	.61
105056CF	30	Double row	1.09	.99	.89	.68
163862CF	34	Double row	1.19	1.05	.92	.79
111704CF	40	Double (Tin)	1.29	1.15	.99	.89

Right Angle Mount (Side Entry)



Part No.	Contacts	Type	1	10	100	500
71159CF	20	Double row	$1.25	$1.10	$.99	$.85

Centronics Parallel Interface Connectors

Metal Body and Shell, Solder-Type Contacts

SALE


180072CF


42382CF

- Solder eyelets accept 24 AWG wire, pg 125
- Male cable plugs
- Complete with cable boot, shell and hardware

Part No.	Cross Ref. No.	Contacts	1	10	50
180072CF	57-30140	14 ~~$2.79~~	$1.39	$1.25	$1.15
42382CF	57-30360	36	1.79	1.59	1.49

.100" & 2mm IDC Socket Connectors

Double Row

- Mates with 2 rows of .025"Sq. or Dia. posts on patterns of .100" centers (male headers, see below)
- Current rating: 1A
- Industry standard IDC socket (plastic)
- Temperature rating: -55°C to +105°C
- Use crimper P/N 73251CF, pg 172


32563CF

Polarized IDC Socket Connectors

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
32491CF	S10	10	$.29	$.25	$.19	$.15
153947CF	S14	14	.32	.27	.21	.16
119466CF	S16	16	.35	.29	.22	.17
32521CF	S20	20	.39	.32	.25	.18
32563CF	S26	26	.45	.35	.29	.19
32643CF	S34	34	.49	.39	.35	.25
32678CF	S40	40	.55	.45	.39	.29
100386CF	IDC440*	44 (2mm)	.99	.89	.75	.59
32707CF	S50	50	.65	.55	.45	.35
32758CF	S60	60	.75	.68	.54	.40

*2mm pin spacing

Non-Polarized IDC Socket Connectors

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
138376CF	SN10	10	$.35	$.32	$.28	$.24
138325CF	SN20	20	.45	.40	.36	.28
138333CF	SN26	26 ~~$.54~~	.39	.35	.32	.28
138341CF	SN34	34	.45	.39	.35	.29
138350CF	SN40	40	.49	.45	.39	.29
138368CF	SN50	50	.65	.55	.45	.35

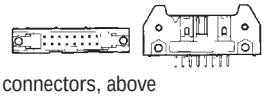
.100" (2.5mm) Straight Male Headers

With Standard Latch


71829CF

Double Row

- 0.1" contact center
- Mount vertical
- Keying slot
- Use with IDC socket connectors, above



Part No.	Description	1	10	100	500
117663CF	10-pin	$1.29	$1.09	$.81	$.58
71829CF	20-pin	1.39	1.25	1.13	.95
71933CF	26-pin	1.49	1.25	.99	.89
72215CF	50-pin	1.85	1.65	1.49	1.35

PANAVISE IDC Bench Press and Cable Cutter

Designed for low to medium volume mass termination of various IDC connectors on flat ribbon cable.

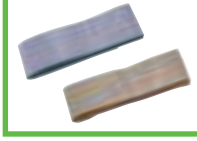

27182CF

27174CF

Part No.	Prod. No.	Description	Wt. (lbs.)	1	10
27174CF	M505	Bench press	7.0	$179.95	$159.95

M505 Accessories

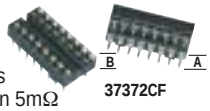
27182CF	M507	Cable cutter	0.9	$66.95	$61.95
27203CF	M510	Base plate	0.5	26.49	23.49



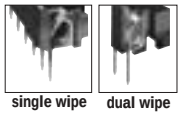
See page 125 for Gray and Multicolor Ribbon Cables

Solder Tail Low Profile Sockets

- Material: beryllium copper or phosphor bronze
- Contact current: 1A
- Tin-plated contacts and tails
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide
- Sleeve material: brass
- Thru-hole lead length: .140" (A)
- Body height: .188" (B)



37372CF


single wipe dual wipe

Single Wipe

- **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	10	100	1000
51570CF	8LP	8	0.3	$.07	$.06	$.05
37161CF	14LP	14	0.3	.09	.07	.06
37372CF	16LP	16	0.3	.10	.09	.06
38113CF	18LP	18	0.3	.11	.094	.07
38607CF	20LP	20	0.3	.12	.10	.07
39132CF	22LP	22	0.4	.12	.10	.07
39378CF	24SLP	24	0.3	.17	.12	.06
39335CF	24LP	24	0.6	.16	.14	.09
40301CF	28LP	28	0.6	.19	.13	.09
41110CF	40LP	40	0.6	.19	.17	.12

Dual Wipe

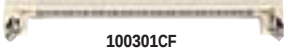
- **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	10	100	1000
112192CF	6LPD	6	0.3	$.09	$.06	$.05
112205CF	8LPD	8	0.3	.09	.08	.07
112213CF	14LPD	14	0.3	.10	.075	.05
112221CF	16LPD	16	0.3	.13	.115	.095
112230CF	18LPD	18	0.3	.16	.14	.12
112248CF	20LPD	20	0.3	.17	.14	.11
112281CF	24SLPD	24	0.3	.17	.14	.11
112264CF	24LPD	24	0.6	.19	.16	.12
112299CF	28SLPD	28	0.3	.21	.19	.17
112272CF	28LPD	28	0.6	.21	.17	.12
112301CF	32LPD	32	0.6	.18	.14	.10
112310CF	40LPD	40	0.6	.26	.23	.19
167396CF	48LPD	48	0.6	.35	.32	.29
112326CF	64LPD	64	0.9	.39	.33	.24

SIMM Sockets

SALE

- Locking tabs
- Tinned contacts
- Memory module sockets
- Keyed mounting posts


100301CF

Part No.	Description	1	10	100	500
100301CF	Single x 30-pin, vert.	$.52	$.47	$.43	$.39
72531CF	Dual x 30-pin, vert.	$.69	.62	.55	.49
203203CF	Single x 68-pin vert.	.89	.75	.59	.49
72426CF	Single x 72-pin vert.	.41	.37	.33	.30

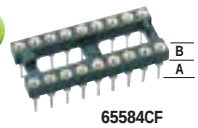
30-Day Money-Back Guarantee

If you're not completely satisfied with your purchase, we'll take it back!

Details on page 226.

Machine Tooled Solder Tail Low Profile Sockets

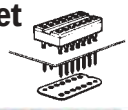
- Contact plating: gold
- Tin-plated leads
- Contact current: 3A
- Multiple contact elements
- Material: beryllium copper or phosphor bronze
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide
- Sleeve material: brass
- Thru-hole lead length: .177" (A)
- Body height: .117" (B)



65584CF

Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	1	10	100	1000
167003CF	6MLPT	6	0.3	$.29	$.26	$.18	$.16
51625CF	8MLP	8	0.3	.25	.22	.19	.17
37196CF	14MLP	14	0.3	.42	.38	.33	.30
37401CF	16MLP	16	0.3	.47	.43	.37	.34
65584CF	18MLP	18	0.3	.55	.49	.43	.39
38623CF	20MLP	20	0.3	.59	.55	.45	.39
192209CF	224SMLP	22	0.4	.59	.53	.42	.31
39386CF	24SMLP	24	0.3	.65	.59	.47	.35
39351CF	24MLP	24	0.6	.72	.65	.52	.39
114411CF	28SMLP	28	0.3	.85	.75	.65	.55
184680CF	284SMLP	28	0.4	.85	.75	.65	.55
40328CF	28MLP	28	0.6	.83	.75	.65	.59
105380CF	32MLP	32	0.6	.95	.85	.75	.65
41136CF	40MLP	40	0.6	1.19	1.05	.79	.69
42059CF	48MLP	48	0.6	1.29	1.18	.94	.71
200707CF	64MLP	64	0.9	1.35	1.25	1.15	.99

Wire Wrap Socket I.D. Markers



- Quick identification of pin numbers
- Slips onto socket before wrapping
- Plastic
- Can easily write location, part number or function


37145CF

Part No.	Prod. No.	Pins	Width (in.)	1	10	100	500
51561CF	8ID	8	0.3	$.44	$.35	$.30	$.28
37145CF	14ID	14	0.3	.35	.31	.28	.24
37356CF	16ID	16	0.3	.29	.26	.25	.23
38105CF	18ID	18	0.3	.49	.45	.39	.35
38586CF	20ID	20	0.3	.55	.49	.45	.41
39327CF	24ID	24	0.6	.59	.52	.43	.38
40299CF	28ID	28	0.6	.65	.55	.45	.41
41101CF	40ID	40	0.6	.89	.79	.69	.65

PLCC Solder Tail Sockets

- Solder tail allows through-hole board patterns in .100" grid
- Accepts JEDEC type "A" plastic leaded chip (0.05" centers)
- Thru-hole lead length: .125"
- Body height: .375"

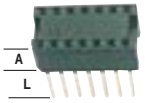

71968CF

Part No.	Mfr. Cross Ref. No.	Pins	1	10	50	100
71263CF	G1P428	28	$.56	$.44	$.34	$.29
71811CF	G1P432	32	1.15	.99	.81	.54
71618CF	G1P444	44	1.15	.99	.81	.69
72442CF	G1P452	52	.99	.79	.65	.55
71968CF	G1P468	68	1.15	.99	.89	.79
71976CF	G1P484	84	1.29	1.19	.93	.70


See page 83 for PLCC Surface Mount Sockets.

Level 1, 2 & 3 Wire Wrap Sockets

- Contact plating/leads: gold (WW) or tin (TWW); Dual Wipe
- Material: beryllium copper or phosphor bronze
- Contact current: 1A
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide • Sleeve material: brass
- Thru-hole lead length: .315" (L1); .438" (L2); .638" (L3) • Body height: .300" (A)



37233CF

Gold (WW)

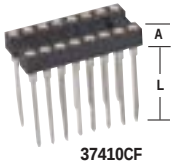
Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	1	10	100	500
51641CF	8WW2	8	0.3	$1.49	$1.29	$1.19	$.99
196832CF	14WW1	14	0.3	1.15	1.01	.83	.62
37233CF	14WW2	14	0.3	1.49	1.35	1.19	1.09
37479CF	16WW2	16	0.3	1.75	1.59	1.43	1.29
196859CF	18WW3	18	0.3	1.43	1.27	1.03	.77
38674CF	20WW2	20	0.3	2.25	1.99	1.82	1.65
39394CF	24WW2	24	0.6	1.85	1.63	1.43	1.33
40352CF	28WW2	28	0.6	2.19	1.99	1.75	1.60
41187CF	40WW2	40	0.6	3.15	2.80	2.45	2.29

Tin (TWW)

Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	1	10	100	500
112660CF	8TWW2	8	0.3	$.49	$.45	$.38	$.34
37217CF	14TWW2	14	0.3	1.15	1.03	.93	.84
196841CF	14TWW3	14	0.3	.83	.71	.53	.49
37436CF	16TWW2	16	0.3	.99	.89	.73	.66
87636CF	18TWW2	18	0.3	1.09	.98	.81	.73
75379CF	20TWW2	20	0.3	1.69	1.52	1.35	1.23
75416CF	24TWW2	24	0.6	1.49	1.35	1.09	.79
75424CF	28TWW2	28	0.6	2.19	1.95	1.79	1.59
41179CF	40TWW2	40	0.6	2.49	2.15	1.79	1.59

Level 2 & 3 Machine Tooled Wire Wrap Sockets

- Contact plating: gold
- Tin-plated leads
- Contact current: 3A
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Material: beryllium copper or phosphor bronze
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide
- Sleeve material: brass • Body height: .115" (A)
- Thru-hole lead length: .365" (L2); .515" (L3)



37410CF

Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	1	10	100	500
94473CF	8MSWW3	8	0.3	$.53	$.46	$.38	$.34
62050CF	14MSWW3	14	0.3	.93	.80	.67	.60
37410CF	16MSWW3	16	0.3	1.09	.93	.78	.69
94481CF	18MSWW3	18	0.3	1.09	.93	.78	.74
38631CF	20MSWW3	20	0.3	1.33	1.14	.95	.86
185324CF	22MSWW3	22	0.3	1.35	1.21	1.09	.99
192831CF	224MSWW3	22	0.4	1.45	1.25	.99	.78
105371CF	24SMSWW3	24	0.3	1.49	1.29	1.08	.97
196867CF	24MSWW2	24	0.6	1.49	1.35	1.15	.81
94490CF	24MSWW3	24	0.6	1.60	1.45	1.35	1.19
200715CF	283MSWW3	28	0.3	1.69	1.43	1.19	1.07
40336CF	28MSWW3	28	0.6	1.69	1.43	1.19	1.07
117057CF	32MSWW3	32	0.6	2.19	1.79	1.55	1.35
94502CF	40MSWW3	40	0.6	2.66	2.28	1.90	1.71
200723CF	48MSWW3	48	0.6	2.99	2.69	2.42	2.18
200731CF	64MSWW3	64	0.9	3.29	2.99	2.75	2.49

Machine Contact Dual-In-Line Female Sockets

- 0.100" centers
- Solder tail contact: .114" L
- Pin sleeve: tin
- Contact clip: gold



184612CF

Part No.	Mfr. Cross Ref. No.	Pins	1	10	100
212855CF	SA101000	10	$.29	$.23	$.21
212863CF	SA121000	12	.30	.28	.25
212871CF	SA141000	14	.35	.33	.30
212880CF	SA161000	16	.40	.37	.34
212898CF	SA181000	18	.45	.42	.38
184612CF	SA201000	20	.50	.46	.42
212901CF	SA221000	22	.55	.51	.47
212919CF	SA241000	24	.60	.56	.51
212927CF	SA321000	32	.80	.74	.68
212935CF	SA481000	48	1.20	1.11	1.01

Machine Contact Single-In-Line Female Sockets

- Machine tooled
- Solder tail and wire wrap



78641CF



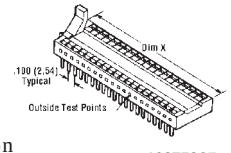
104053CF

Part No.	Description	1	10	100	500
102200CF	Single x 10-pin	$.25	$.22	$.20	$.18
192840CF	Single x 11-pin	.49	.44	.35	.26
78641CF	Single x 30-pin	.89	.80	.68	.61
175919CF	Single x 36-pin	1.19	1.09	.97	.87
101282CF	Single x 20-pin WW2†	1.49	1.35	1.09	.80
104053CF	Single x 30-pin WW3*	1.95	1.75	1.49	1.35

† Lead length: .435"(2) * Lead length: .575" (3)

ARIES Low Profile ZIF Sockets

Provides a low cost solution for ZIF test socket requirements. It has a height of only .319" (8.10mm), and even with the handle in open position it measures just .554" (14.07mm).

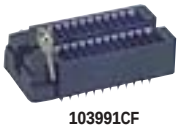


102752CF

Part No.	Aries No.	Pins	Dim X	1	10	100
102744CF	28-526	28	1.64"	$5.49	$4.99	$4.49
102752CF	40-526	40	2.24"	6.95	6.39	5.75

ARIES Universal ZIF Sockets

- Solder directly to PCB or plug directly into IC socket
- Screw mounting holes
- Accepts .300" to .600" IC centers x .10" spacing

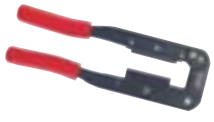


103991CF

Part No.	Aries No.	Pins	1	10	100
103991CF	24-6554-10	24	$7.49	$6.79	$5.99
104002CF	28-6554-10	28	8.45	7.39	7.15
104011CF	32-6554-10	32	9.95	8.49	8.29
104029CF	40-6554-10	40 ~~$11.95~~	11.25	9.80	9.45







For Tools see pages 168 - 178.

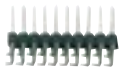
.100" Male Headers (Gold)

- Solder to PC boards for instant plug-in access via shorting blocks, pg 141
- Snap apart to fit your application
- Contact material: phosphor bronze • Current rating: 1 amp
- Contact area: gold • Temp. range: -55°C to +120°C
- .025" square posts on a .100" x .100" matrix
- Use with crimp connector housing, pg 138

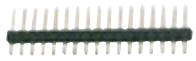
✳**Prepackaged: order in increments of 10, 100 or 1000**



109567CF



53575CF

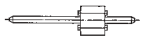


103376CF



153728CF

.100" Straight Male Headers Single Row

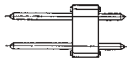




109575CF

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
108337CF	SMH02	2 ✳	$.16	$.14	$.13	
109575CF	SMH03	3 ✳	.17	.15	.135	
117559CF	SMH04	4 ✳	.17	.15	.135	
153699CF	SMH06	6 ✳	.17	.15	.135	
153701CF	SMH08	8 ✳	.20	.17	.15	
103392CF	SMH10	10 ✳	.18	.14	.10	
103376CF	SMH17	17 ✳	.16	.14	.13	
103368CF	SMH20	20 ✳	.25	.23	.21	
202825CF	SMH22	22 ✳	.25	.21	.16	
103350CF	SMH25	25 ✳	.25	.21	.16	
103341CF	SMH30	30	.35	.31	.28	.25
68339CF	SMH36	36	.42	.38	.34	.29
160881CF	SMH40	40	.49	.44	.40	.36

.100" Straight Male Headers Double Row

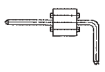




67820CF

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
115027CF	923804DS	4 ✳	$.10	$.09	$.07	
115035CF	923806DS	6 ✳	.18	.16	.14	
109516CF	923808DS	8 ✳	.18	.16	.14	
67820CF	923810DS	10 ✳	.18	.16	.14	
203810CF	923812DS	12	.55	.49	.44	
118455CF	923814DS	14	.45	.40	.36	.33
109567CF	923816DS	16	.55	.49	.45	.39
203828CF	923818DS	18	.65	.59	.55	.49
53479CF	923862DS	20	.59	.55	.48	.43
203836CF	923822DS	22	.70	.65	.59	.49
203844CF	923824DS	24	.70	.65	.59	.49
53495CF	923863DS	26	.70	.55	.40	.29
203852CF	923828DS	28	.75	.69	.59	.55
203879CF	923830DS	30	.75	.69	.59	.55
203861CF	923832DS	32	.75	.69	.59	.55
53516CF	923864DS	34	.65	.59	.53	.45
203887CF	923836DS	36	.80	.75	.65	.59
203895CF	923838DS	38	.80	.75	.65	.59
53532CF	923865DS	40	.65	.55	.39	.25
53559CF	923866DS	50	.60	.55	.49	.45
68574CF	923860DS	60	.70	.65	.59	.55
103405CF	923872DS	72	.85	.75	.69	.59
117196CF	923880DS	80	.90	.80	.75	.65

.100" Right Angle Male Headers Single Row

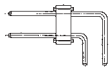


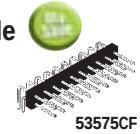


153728CF

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
153728CF	RMH08	8	$.45	$.40	$.30	$.25
103270CF	RMH36	36	.75	.64	.58	.41

.100" Right Angle Male Headers Double Row





53575CF

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
203908CF	923804DR	4	$.49	$.44	$.40	$.36
203916CF	923806DR	6	.55	.49	.33	.26
203924CF	923808DR	8	.49	.44	.35	.26
203932CF	923810DR	10	.59	.53	.40	.31
203941CF	923812DR	12	.59	.53	.42	.31
203959CF	923814DR	14	.65	.58	.47	.34
203967CF	923816DR	16	.65	.58	.47	.34
203975CF	923818DR	18	.65	.58	.47	.34
53575CF	923820DR	20	.59	.53	.48	.43
203983CF	923822DR	22	.65	.58	.47	.34
203991CF	923824DR	24	.65	.58	.47	.34
53583CF	923826DR	26	.69	.55	.41	.29
204003CF	923828DR	28	.69	.62	.50	.36
204011CF	923830DR	30	.75	.68	.54	.40
204020CF	923832DR	32	.75	.68	.54	.40
204038CF	923834DR	34	.75	.68	.54	.40
204046CF	923836DR	36	.75	.68	.54	.40
204054CF	923838DR	38	.75	.68	.54	.40
53604CF	923840DR	40	.85	.75	.57	.50
53612CF	923850DR	50	.85	.75	.57	.50
103413CF	923872DR	72	1.15	.99	.89	.75
139563CF	923880DR	80	1.35	1.19	1.09	.99

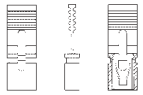
.100" Shorting Block w/ Handle

- Mates w/ .100" male headers, pg 141

Ratings:
- Current: 3A
- Accessible test point in handle
- Contact resistance: 20mΩ max.

Material:
- Plastic: PBT, glass filled
- Contact: phosphor bronze





- **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Description	10	100	1000
152670CF	.100" shorting block	$.19	$.15	$.12

.100" and 2mm Shorting Blocks

- Mates to .025" square posts on .100" centers
- Shorting socket jumper to address or code strip line plugs
- Mate with male headers, pg 141
- Pin material: phosphor bronze

Open: open on top to allow for a test point while

Closed: closed – functionally they are the same

119263CF: 2mm shorting block (for disk drives)



22023CF (open)



112432CF (closed)

- **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Description	10	100	1000
22023CF	Top open, black	$.12	$.09	$.06
119263CF	Top open, black (2mm) ~~$.19~~	.15	.135	.12
112424CF	Top open, blue	.12	.09	.06
112416CF	Top open, red	.12	.09	.06
19140CF	Top closed, black	.12	.09	.06
112441CF	Top closed, blue	.12	.09	.06
112432CF	Top closed, red	.16	.14	.11

Audio/Video Cables and Adapters

RCA Cables

Part No.	Description	1	10	25
215474CF	3' RCA male plug – female jack (gray)	$1.15	$.99	$.89
228443CF	3' stereo RCA (2) male to (2) male plugs, gold plated	1.49	1.39	1.29
183311CF	4' RCA male to male plug (black)	.99	.89	.79
206973CF	4' RCA male to male plug (yellow)	.99	.89	.79
183302CF	4' RCA (2) male to (2) male plugs (red/black)	1.75	1.45	1.35
106374CF	6' RCA male to male plug	1.19	.98	.91
228419CF	6' mono RCA male plug to female jack	1.65	1.45	1.25
228486CF	6' RCA stereo (2) male plugs to (2) female jacks	1.25	1.15	1.05
228451CF	6' RCA stereo (2) male to (2) male plugs, gold plated	1.79	1.69	1.59
228401CF	6' RCA stereo (2) male plugs to 3.5mm stereo male plug	1.55	1.39	1.25
177527CF	6' RCA (3) male to (3) male plugs	1.89	1.75	1.55
184882CF	6' RCA (3) male to (3) male plugs, low loss	1.95	1.79	1.59
228427CF	10' RCA female jack to male plug	2.35	1.95	1.79
29348CF	10' RCA male to male plug (yellow)	1.69	1.49	1.39
228460CF	12' RCA stereo (2) male to (2) male plugs, gold plated	2.10	1.89	1.75
225980CF	12' RCA (3) male to (2) male plugs, gold plated	4.49	3.99	3.65
225998CF	20' RCA (3) male to (2) male plugs, gold plated	7.99	7.19	6.45
228435CF	25' mono RCA male to male plug, nickel plated	2.19	2.09	1.99
228478CF	25' RCA stereo (2) male to (2) male plugs, gold plated	2.39	2.29	2.19


228443CF/228451CF
228460CF/228478CF


206973CF/29348CF


228419CF


228486CF


228401CF


177527CF


225980CF/225998CF


228435CF


228494CF/228507CF


228515CF/228523CF


228216CF/228574CF/
228582CF

3.5mm Audio Patch Cables

228494CF	6' 3.5mm stereo male to male plug	$1.39	$1.19	$.99
228515CF	6' 3.5mm stereo male plug to female jack	1.49	1.35	1.25
228507CF	12' 3.5mm stereo male to male plug	1.69	1.49	1.29
228523CF	12' 3.5mm stereo male plug to female jack	1.65	1.49	1.35

Video/Audio Patch Cables

Part No.	Description	1	10	25
228216CF	3' stereo video patch cable, gold plated	$1.19	$1.13	$1.07
228574CF	25' stereo video patch cable, gold plated	6.99	6.29	5.65
228582CF	50' stereo video patch cable, gold plated	12.59	11.35	10.19

VCR Cable

228224CF	6' stereo VCR cable	$2.39	$2.29	$2.15

S-VHS Cables and Adapters

Low-loss fully shielded Super-VHS cables, 4-contact mini DIN plus S-VHS cable and dual-RCA plug stereo cables.

- Fully-molded color coded gold RCA connectors
- Flexible black PVC jacket
- Applications: home theaters, DSS receivers, Super-VHS VCRs, camcorders, and DVD players


228591CF


228558CF


229809CF


229391CF

228558CF/228566CF: 95% spiral wound shield S-VHS/audio conductors

Part No.	Description	1	10	25
228591CF	6' S-VHS video cable, gold plated	$2.15	$1.95	$1.79
228558CF	6' S-VHS audio-video cable, gold plated	12.95	11.65	10.49
228566CF	12' S-VHS audio-video cable, gold plated	14.95	13.45	12.15
228603CF	12' S-VHS video cable, gold plated	2.65	2.35	2.10
228611CF	25' S-VHS video cable, gold plated	4.05	3.85	3.65
229809CF	S-video 4-pin mini DIN female to female jack	2.85	2.59	2.29
229391CF	S-video male plug to RCA video female jack	5.39	4.85	4.39

3.5mm Female Jacks and Male Plugs


109495CF


165729CF


101151CF/231175CF


231159CF

- Threaded screw on housing
- 1mm diameter solder eyelets
- Shield crimp tabs


231167CF

231159CF/231167CF: With spring strain relief

Part No.	Mfr. Cross Ref. No.	Description	1	10	100	1000
109495CF	PJ035PM	Mono F jack, 3.5mm hole size	$.45	$.40	$.36	$.32
165729CF	PJ0354	Mono F jack, 3.5mm hole size	.69	.59	.49	.39
101151CF	PJ1035	Mono male plug, plastic	.69	.62	.55	.49
147344CF	PJ1035L	Mono male plug, plastic	.59	.53	.48	.43
231159CF	AP-336	Mono male plug, metal	1.25	1.19	1.09	.95
231175CF	AP-340	Stereo male plug, plastic	.45	.41	.35	.27
231167CF	AP-343	Stereo male plug, metal	1.79	1.60	1.45	1.30

RCA Plugs

- High-quality plastic and metal housing RCA plugs


229876CF


229930CF

Gold plated metal housing w/ spring strain relief for 6.7mm cables

Part No.	Description	1	10	25	100
229876CF	Black	$1.89	$1.69	$1.55	$1.39
229868CF	Red	1.89	1.69	1.55	1.39
229884CF	White	1.89	1.69	1.55	1.39
230287CF	Yellow	1.89	1.69	1.55	1.39

Plastic screw on cover w/ integral cable protection

229921CF	Black (5 pk)	$1.15	$1.05	$.91	$.85
229930CF	Red (5 pk)	1.15	1.05	.91	.85
229913CF	White (5 pk)	1.19	1.09	.95	.89
229892CF	Yellow (5 pk)	1.19	1.09	.95	.89

RCA Jacks

- Standard RCA jacks for audio and video signals

Part No.	Dimensions	Color	1	10	100	1000
220581CF	.44"W x .56"D x .48"H	Wht	$.45	$.31	$.28	$.22
220556CF	.44"W x .56"D x .48"H	Red	.45	.31	.28	.22
220572CF	.44"W x .56"D x .48"H	Blk	.45	.31	.28	.22
220564CF	.44"W x .56"D x .48"H	Yel	.45	.31	.28	.22
112475CF	.44"W x .58"D x .48"H	Red	.39	.35	.31	.19
169501CF	.40"W x .85"D x .50"H	Blk	.39	.35	.31	.23
159484CF	.84"W x .38"H	Blk	.49	.39	.33	.24
172339CF	.84"W x .38"H	Red	.49	.39	.31	.23


220581CF


220556CF


220572CF


220564CF


112475CF


169501CF


159484CF


172339CF

We'll match the advertised price of any like product.

Jameco's Low-Price Guarantee

It's that simple!

Digital Audio Optical Cables and Adapters

Connect your DVD, CD, Mini Disc, DAT, game console or other digital audio equipment for clear, full and richly detailed sound. For the ultimate listening experience, connect to your Dolby Digital® or DTS® home theater equipment. These cost effective performance TOSLINK type cables give you the cleanest possible signal, even at extreme volume levels for today's audio and home theater applications. They are manufactured with high-quality P.M.M.A. optical fiber and highly-polished lenses. The durable connectors ensure long lasting, corrosion-free connections. The stylish PVC jacket adds flexibility and durability for years of listening pleasure.


228654CF


228689CF


230615CF


230607CF

- Low-loss core provides low distortion and high signal-to-noise ratio
- Clad reflecting layer prevents phase error and noise, achieving high-fidelity transmission effect
- Corrosion-resistant, precise collar to ensure long lasting quality
- Non-slip rubber grip connector provides for easy installation
- Ultra flexible PVC jacket makes installation, even in hard to reach areas a snap

Cables

Part No.	Description	1	2	5
228654CF	3' TOSLINK–TOSLINK	$3.79	$3.35	$2.85
228689CF	3' TOSLINK–mini plug	9.95	8.95	7.95
228662CF	6' TOSLINK–TOSLINK	4.75	4.29	3.79
228697CF	6' TOSLINK–mini plug	16.65	14.99	13.49
228671CF	12' TOSLINK-TOSLINK	7.29	6.59	5.95
228700CF	12' TOSLINK–mini plug	23.29	20.95	18.85

Adapters

Part No.	Description	1	2	5
230615CF	TOSLINK – mini plug adapter	$2.79	$2.59	$2.49
230607CF	TOSLINK – TOSLINK coupler	1.89	1.79	1.69

Component Video and Audio Cables

Component video cables connect the latest video equipment like DVD players equipped with component video output jacks to LCD or plasma televisions, projectors and other component video devices. By using component video cables, you bypass the TV's Y/C separator and color decoder, routing the color (Y Pr Pb) information directly into the TV's matrix decoder. By sending the pure DVD component signal directly to a component video input-equipped display device, the DVD signal forgoes the extra processing that normally would degrade the image. Python™ component video cables provide you maximum picture and sound quality compared to ordinary "out of the box" cables.


228638CF


229403CF

- Low-loss 75Ω oxygen-free copper center conductors and foam dielectric provide maximum signal transfer bandwidth for improved picture quality and performance
- Corrosion resistant, precise 24k gold-plated connectors ensure long lasting quality
- Fully molded color coded connectors attached to an ultra-flexible PVC jacket provides excellent strain relief, easy installation, and identification
- 100%, .012mm aluminum-polyester foil shielding and spiral-wound copper-braid shielding provides clear, noise-free, vivid picture quality
- Bonded construction design for neat, easy connection of component video and audio

Part No.	Description	1	2	5
228620CF	6' component video RGB cable	$12.35	$11.15	$9.99
228638CF	12' component video RGB cable	23.75	21.39	19.25
228646CF	25' component video RGB cable	33.95	30.59	27.49
229403CF	6' component video RGB and stereo audio cable	17.29	15.59	13.99
229411CF	12' component video RGB and stereo audio cable	33.25	29.95	26.95
229420CF	25' component video RGB and stereo audio cable	47.55	42.79	38.55

Audio Adapters and Cables

RCA Audio Adapters

Part No.	Description	1	10	25	100
228283CF	RCA female jack to mono 1/4" male plug	$.99	$.89	$.69	$.55
228312CF	RCA male plug to 1/4" mono female jack	1.25	1.10	.79	.69
228267CF	RCA female to female jack coupler, gold plated	.95	.79	.55	.45
159441CF	RCA female to female jack coupler, metal	1.15	.99	.75	.65
228259CF	RCA male to male plug adapter	1.59	1.25	.99	.85
228339CF	RCA F jack to 3.5mm mono M plug, gold plated	1.49	1.29	1.09	.90
228291CF	RCA F jack to 3.5mm mono M plug, nickel plated	1.25	1.09	.89	.75
215458CF	RCA male plug to 3.5mm mono female jack	.89	.75	.69	.59

RCA Y-Cables

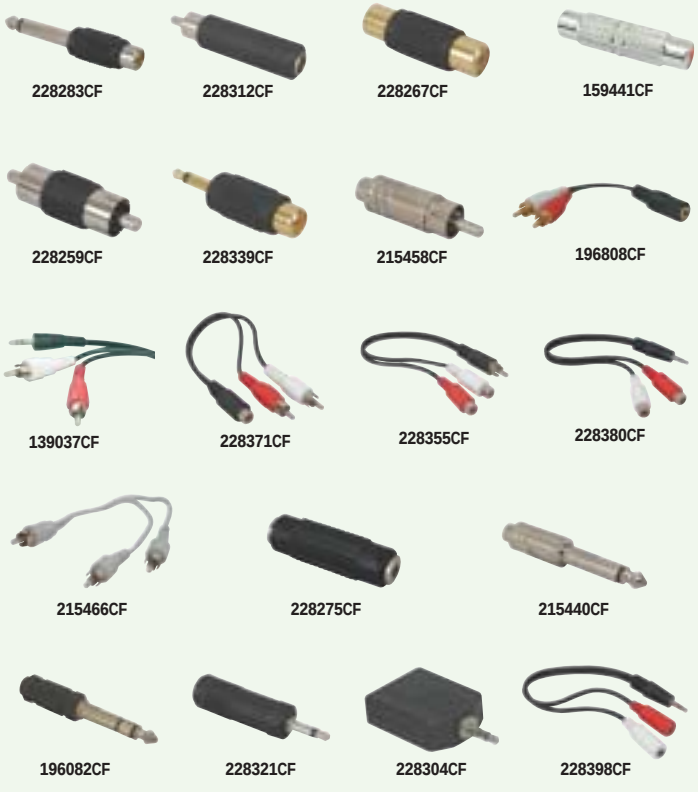
Part No.	Description	1	10	25	100
196808CF	5" Y-cable 1/8" stereo F jack to (2) RCA M plugs	$.75	$.65	$.59	$.53
139037CF	5' Y-cable 1/8" stereo M plug to (2) RCA M plugs	2.25	1.99	1.79	1.61
228371CF	6" Y-cable (2) RCA M plugs to RCA F jack	.99	.89	.80	.72
228355CF	6" Y-cable RCA M plug to (2) RCA F jacks	1.15	.99	.85	.79
228380CF	6" Y-cable (2) RCA F jacks to 3.5mm stereo plug	1.65	1.35	1.25	1.19
215466CF	8" Y-cable RCA M plug to (2) RCA M plugs	1.89	1.69	1.53	1.38

3.5mm Audio Adapters

Part No.	Description	1	10	25	100
228275CF	3.5mm stereo female to female jack	$.55	$.49	$.44	$.365
215440CF	3.5mm mono female jack to 1/4" mono male plug	.45	.39	.35	.32
196082CF	3.5mm stereo female jack to 1/4" stereo male plug	.59	.49	.31	.28
228321CF	3.5mm mono M plug to 1/4" stereo F jack	1.39	1.15	.99	.75
228304CF	3.5mm stereo M plug to (2) 1/4" stereo F jacks	2.05	1.85	1.25	1.15
228339CF	3.5mm mono M plug to RCA F jack, gold plated	1.49	1.29	1.09	.90
228291CF	3.5mm mono M plug to RCA F jack, nickel plated	1.25	1.09	.89	.75
215458CF	3.5mm mono female jack to RCA male plug	.89	.75	.69	.59

3.5mm Y-Cables

Part No.	Description	1	10	25	100
196808CF	5" Y-cable 1/8" stereo F jack to (2) RCA M plugs	$.75	$.65	$.59	$.53
139037CF	5' Y-cable 1/8" stereo M plug to (2) RCA M plugs	2.25	1.99	1.79	1.61
228398CF	6" Y-cable (2) 3.5mm stereo female jacks to 3.5mm stereo male plugs	1.95	1.65	1.35	1.25
228380CF	6" Y-cable (2) RCA F jacks to 3.5mm stereo M plug	1.65	1.35	1.25	1.19



20MHz 2-Channel Analog Oscilloscope

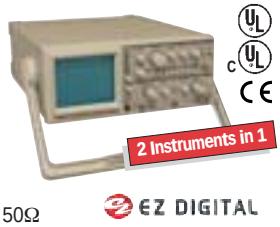


- 6" rectangular high-resolution blue CRT with internal graticule & scale
- Vertical deflection: 5mV/div to 5V/div in 10 calibrated steps
- Horizontal deflection: 0.2µs/div to 0.2s/div in 19 calibrated steps, 1-2-5 sequence
- Max. signal input voltage: 250V (DC and peak AC)
- ADD function measures sum of two signals
- Input voltage: 98-125VAC @ 1A, 198-225VAC @ 0.5A, 50-60Hz, 45W
- Two-year manufacturer's warranty
- Size: 16.4"L x 12.6"W x 5.3"H • Weight: 20.8 lbs.

Includes: Two (X1/X10) 40MHz probes, power cord, manual, and block diagram

Part No.	Product No.	1	5
136098CF	OS5020 ~~$429.95~~	$399.95	$385.95

20MHz 2-Channel Analog Oscilloscope with 1MHz Function Generator



- Basic specs same as OS5020 (above)

Function generator

- Frequency range: 0.1Hz to 1MHz (7 ranges)
- Output waveforms: sine, triangle, square, TTL pulse
- Output impedance: 50Ω
- Output voltage: 14Vp-p
- Two-year manufacturer's warranty
- Size: 12.6"L x 12.6"W x 6.8"H • Weight: 23.8 lbs.

Includes: Two X1/X10 40MHz probes, power cord, manual, BNC to alligator, and cable

Part No.	Product No.	1	10
94650CF	OS5020G	$529.95	$499.95

20MHz 2-Channel Analog Oscilloscope with Built-in Component Checker



- 6" rectangular CRT with internal graticule
- Built-in component checker/tester for resistors, capacitors, coils, diodes
- Vertical sensitivity: 5mV/div to 20V/div in 12 calibrated steps (1-2-5 sequence)
- Input impedance: 1MΩ + 20pF
- Max. input (vertical amplifier): 300VDC or AC peak
- Horizontal sweep time: 0.2µs/div to 0.5s/div in 20 calibrated steps (1-2-5 sequence)
- Internal trigger sensitivity: 20Hz to 20MHz
- Size: 17"L x 14"W x 5.75"H • Weight: 15.5 lbs.

Includes: Two X1/X10 60MHz probes, power cord, and operations manual

Part No.	Product No.	1	5
201857CF	P-3502C ~~$429.95~~	$394.95	$375.19

20MHz 2-Channel Analog Oscilloscope with Alt-Mag and 1mV/div Sensitivity



- Large 6" CRT with internal graticule
- Alt-Mag sweep for simultaneous displays of the main and X5 magnified trace
- Auto-focus
- Input voltage: 100V, 120V, 220V, 240V @ 50-60Hz (selectable)
- Size: 14.8"L x 13.4"W x 5.5"H • Weight: 24 lbs.

Vertical Amplifier

- Sensitivity – 1mV/div to 1V/div (X5 Mag); 5mV/div to 5V/div in 10 steps (1-2-5 seq.)
- Bandwidth: (-3dB): DC to 20MHz
- Input impedance: 1M ohms + 25pF
- Maximum input voltage: 400V (DC or AC peak)

Horizontal Sweep

- Sweep time: 0.1uS/div to 0.2S/div in 20 steps (1-2-5 seq); X5 mag: 20nS/div to 40mS/div

Triggering

- Sensitivity: Internal – DC to 2MHz: 2 divisions; 2MHz to 20MHz: 3 divisions

Includes: X1 and X10 probes, power cord & manual

Part No.	Product No.	1	5
220679CF	PROTEK 6502	$448.95	$425.95

20MHz 2-Channel Analog Oscilloscope with 1mV/div Sensitivity



- 6" rectangular CRT with internal graticule
- Input sensitivity: 1mV/div
- Vertical deflection: 1mV/div – 1V/div (X5Mag); 5mV – 5V/div in 10 steps (1-2-5 sequence)
- Bandwidth (-3dB): DC – 20MHz
- Input impedance: 1MΩ; 25pF
- Horizontal deflection: 0.2us/div – 0.2s/div in 19 steps (1-2-5 sequence); X10Mag extends maximum sweep rate to 20ns/div
- Trigger system: internal and external trigger system
- External maximum input voltage: 300V (DC+AC)
- Input voltage: 110V/220V @ 48-62Hz
- Size: 14.5"L x 12.2"W x 5.1"H • Weight: 14.3 lbs.

Part No.	Product No.	1	5
226261CF	AEEC-2550S	$389.95	$369.95

100MHz 2-Channel Analog Oscilloscope



- 2-channel dual trace
- Delay line
- Auto focusing according to intensity
- Two-year warranty
- Weight: 22.8 lbs.
- Size: 16.9"L x 12.6"W x 5.5"H

Includes: Two (X1/X10) 100MHz probes, power cord, and operations manual

Part No.	Product No.	1	5
121179CF	OS5100	$999.95	$949.95

100MHz Delayed Sweep Analog Oscilloscope w/ Cursor Readout

2 Channel



- Bandwidth (-3dB): DC-100MHz
- Cursor readout with 7 measurements
- Time base auto range
- 10 save-and-recall memories
- Z-axis modulation input
- TV synchronization
- Vertical sensitivity: 2mV – 5V/div, 11 steps in 1-2-5 sequence; 2mV/div max. to 20MHz
- Maximum input voltage: 400V DC+AC peak @ 1kHz or less
- Input impedance: 1MΩ ±2%, 25pF
- Main sweep time (A): 50ns – 0.5s/div
- Delay sweep time (B): 50ns – 50ms/div
- Delay time: 1us – 5s
- 6" continuously adjustable rectangular CRT with internal graticule, 8x10 div.
- Input voltage: 100/120/230VAC @ 50-60Hz (switchable)
- Size: 12.2"W x 17.9"D x 5.9"H
- Weight: 19.8 lbs. • Two-year warranty

Includes: BNC cable, power cord & operations manual

Part No.	Product No.	1	5
229278CF	GOS-6103	$1,599.95	$1,519.95

100MHz Delayed Sweep Analog Oscilloscope w/ Frequency Counter

2 Channel, 4 Trace



- DC to 100MHz bandwidth
- 6" rectangular CRT with internal graticule
- Auto set, readout cursor, delay sweep, hold-off functions
- Z-axis intensity modulation: DC to 2MHz bandwidth; 30VDC + peak AC max. input voltage
- Vertical deflection factor: 2mV/div to 5V/div
- Horizontal time base A/B deflection: 5ns/div to 0.5s/div in 22 calibrated steps
- Input coupling: AC, GND, DC
- Rise time: 3.5ns or less
- Weight: 17.6 lbs.

Includes: Two X1/X10 100MHz probes, power cord, and operations manual

Part No.	Product No.	1	5
190932CF	OS5100RB	$1,199.95	$1,139.95

Oscilloscope Guide Book



Prompt Publishing This book's full illustrations and diagrams bring oscilloscopes to life. Learn how to use them to conduct many tests and measurement techniques. This book answers questions about various types of oscilloscopes and how to obtain useful test results. (214 pages, 2001)

- Size: 7.5" x 9.2" • Weight: 0.9 lbs.

Part No.	Description	Price
185404CF	Oscilloscope Guide Book	$29.95

Detailed specifications for Test Equipment
www.Jameco.com

100MHz Notebook DSO with 3¾-Digit DMM



- Direct hardcopy through RS-232 interface
- Extra bright 5" backlit LCD display

EZ DIGITAL

Oscilloscope:
- Vertical axis: 8-bits resolution with 1mV/div to 5V/div in 12 steps; 1MΩ/25pF input impedance
- Horizontal axis: 25MS/s real time sampling rate; 5ns/div to 9.5s/div real time sampling rate
- Math parameter of amplitude, frequency, period, pulse width, duty cycle
- Arithmetic functions (addition, subtraction, inversion)
- Two channels and dual digitizers
- Low drift and internal noise
- CH1, CH2 turned on or off independently
- Auto set-up and tracking

4,000-Count 3¾ Digit Multimeter:
- DC/AC voltage ranges: 400mV to 400V in 4 ranges with resolution of 0.1mV to 100mV
- Resistance ranges: 400Ω to 400MΩ in 5 ranges with resolution of 0.1Ω to 1KΩ
- Diode test, continuity test, min./max./relative hold
- Weight: 8.6 lbs.

Includes: Serial cable, software, oscilloscope probes, multimeter probes, power supply and NiCad battery

Part No.	Product No.	1	5
190924CF	OS310M	~~$1,499.95~~ $1,399.95	$1,331.95

150MHz 2-Channel Digital Oscilloscope

New

Color or Monochrome with RS-232/USB/ Parallel Interfaces



INSTEK

- Bandwidth (-3dB): 150MHz
- Real-time sample rate: 100MS/s maximum on each channel; equivalent: 25GS/s
- 2 channels with 8-bit vertical resolution • FFT function
- Auto set vertical, horizontal, and trigger level
- 15 sets of measurements conditions can be saved and recalled
- Vertical sensitivity: 2mV/div – 5V/div
- Input impedance: 1MΩ ±2%, 22pF
- Time base range: 1nS/div – 10S/div
- Delay range: pre-trigger – 20 div. maximum; post-trigger – 1000 div. • Record length 125k/CH
- Trigger sensitivity: DC – 25MHz: 0.35div or 3.5mV; 25MHz – 150MHz: 1.5div or 10mV
- 5.7" (320 x 240 resolution) LCD display with adjustable display contrast
- Waveform display graticule: 8 x 10 divisions
- Display mode: dot, vector, accumulate
- Frequency counter: 6 digits ±50ppm; AC coupled, 10Hz – 150MHz
- Input voltage: 100-240VAC @ 50-60Hz
- Size: 12.2"W x 10.0"D x 5.6"H
- Weight: 9.3 lbs. • Two-year warranty

229307CF: Monochrome scope
229358CF: Monoch. w/ RS-232/USB/parallel interface
229366CF: Color with RS-232/USB/parallel interface

Includes: BNC cable, power cord & operations manual

Part No.	Product No.	1	5
229307CF	GDS-820	$1,299.95	$1,234.95
229358CF	GDS-820S	1,399.95	1,329.95
229366CF	GDS-820C	1,599.95	1,519.95

150MHz 2-Channel Digital Oscilloscope



EZ DIGITAL

- Repetitive B/W: 150MHz
- Sample rate: 100MS/s max. (real time)
- Record length: 32k
- Resolution: 8-bits
- 5.7" mono LCD display (320 x 240)
- Math functions and set-up save/recall
- Automatic measurement amplitude, auto set-up of vertical, horizontal D.F., & trigger level
- Vertical sensitivity: 2mV/div to 5V/div
- Input impedance: 1MΩ or 50Ω, 20pF nominal
- Max. input: 300V@1MΩ; 5V @ 50Ω
- Horizontal time base range: 2ns/Div to 5s/Div
- Trigger sensitivity: DC – 10MHz; 0.5 Div.
- Input voltage: 90 to 250VAC @ 48-440Hz
- Size: 12.9"L x 12.3"W x 5.9"H • Weight: 13.2 lbs.

Includes: Two (X1/X10) 250MHz probes, power cord, and operations manual

Part No.	Product No.	1	5
201865CF	DS-1150	$1,445.95	$1,373.95

Handheld 1MHz Digital Oscilloscope and Multimeter

Six Units in One!



FREE Protective Boot – $19.95 value!

- 4,000 count True-RMS DMM
- 1MHz bandwidth oscilloscope
- 20MHz sampling rate
- Logic test
- Frequency counter
- Trend mode allows recording of sine waves for a period of time
- Component test • Three-year warranty

Includes: AC charger, test leads & manual

Part No.	Description	1	5
160805CF	440 digital scope	~~$349.95~~ $309.95	$295.95
168330CF	RS-232 software and cable	69.95	62.95

Handheld 2MHz Digital Oscilloscope

New

velleman



- 10MHz for repetitive signals; 2MHz for single shot events
- Input impedance: 1MΩ/20pF
- Max. input voltage: 100V peak (AC + DC)
- Input coupling: DC, AC, and GND (GND for auto zero reference)
- LCD graphics display: 112 x 192 pixels
- Vertical resolution: 8-bit
- Timebase range: 50ns to 1 hr./div
- Input sensitivity: 5mV to 20V/div
- Trigger mode: run, normal, once, and ± slope • Linearity: ±1 bit
- True RMS and dB measurements
- High contrast LCD display w/ 3.3" viewing angle
- Recommend 9VDC @ 300mA power supply (133891CF, pg 55) • Screen hold
- Batteries not included, recommend 5 ea. 32627CF or 151087CF, pg 212 • Weight: 1.0 lb.

Includes: Insulated BNC-to-alligator clip measurement probes

Part No.	Product No.	1	5
236507CF	HPS5	$194.95	$185.25

Detailed specifications for Test Equipment
www.Jameco.com

Handheld 5MHz Oscilloscope with 4000-Count Digital Multimeter



221962CF

METEX®

- 128 x 128 pixel graphic STN LCD
- E/L backlight
- PC interface via RS-232
- Memory and recall for 4 values
- **221962CF:** w/ temp. measurement
- **225912CF:** w/ logic test

Oscilloscope:
- DC-5MHz bandwidth; 20MS/sec. sampling rate; single channel
- Vertical axis: 3 steps (±0.5/5/50 volts) with 4 divisions
- Horizontal axis: 16 steps (800ns/div to 26.2ms/div) in 8 divisions
- Trigger: auto and internal mode, slope and 5 trigger level selectable
- Text display for peak to peak, min./max. voltage and frequency

Digital Multimeter:
- 3¾-digit with 43 segment bargraph
- Auto ranging; triple display for related reading; data and range hold; auto/min/max hold and relative offset
- **DC voltage ranges:** 400mV – 1000V
- **AC voltage ranges:** 4V – 750V
- **DC/AC current ranges:** 400uA – 400mA
- **Resistance ranges:** 400Ω – 40MΩ
- **Frequency ranges:** 4kHz – 4MHz
- **Temp. ranges:** -40˚C – +1200˚C (221962CF only)
- **Capacitance ranges:** 4nF – 400µF
- Diode, continuity, and logic test (225912CF only) – text displayed as HI, -----, LO
- Size (unit): 3.4"W x 1.5"D x 8.0"H • Weight: 3.9 lbs.

Includes: Manual, power adapter and test leads

Part No.	Description	1	5
221962CF	MS-1280 (w/ temperature)	$349.95	$332.49
225912CF	MS-1280L (w/ logic test)	349.95	349.95
221938CF	RS-232 cable & software	19.95	18.95
221946CF	Scope probe	24.95	23.69
221954CF	Holster	5.95	5.65

Handheld 20MHz Digital Oscilloscope & Multimeter

METEX®



162430CF

(Shown w/ logic probe P/N 162974CF – not included)

- 4-in-1: digital oscilloscope, DMM, frequency counter & logic analyzer
- **Oscilloscope**: 2-channel input, 5mV-2V/div; DC-20MHz(-3dB); 50ns - 0.5us/div; 20 MS/s sampling rate
- **Logic analyzer:** 8 inputs; 1.4V threshold level; 35VDC max. input; 50ns min. pulse width
- **Digital multimeter:** 3¾-digit (max. 3999 counts); 40 segment analog bargraph; AC/DC voltage 400mV-600V; AC current 40µA-400mA; DC current 400µA-400mA; resistance 400Ω-40MΩ; continuity & diode testing
- **Frequency counter:** 5Hz-20MHz; 5 digit max.; autoranging; AC/DC/DC input coupling; ±10ppm accuracy; 35Vrms/42V-P/60VDC max. input
- Oscilloscope probes: Use P/N 22891CF/216047CF/ 140687CF, pg 147 • One-year warranty
- Battery required for portable use (see below)
- Size: 10.0"L x 5.0"W x 2.0"H • Weight: 9.2 lbs.

Includes: Manual, 5VDC @ 3A power supply, power cord, DMM test leads, holster and case

Part No.	Description	1	5
162430CF	20MHz digital scope	~~$799.95~~ $749.95	$712.49
162974CF	Logic probe	59.95	53.95
163141CF	Rechargeable battery	45.95	41.49
162966CF	RS-232 cable and software	26.95	24.25
221946CF	Scope probe	24.95	23.69

Fluke 123 20MHz Industrial Scopemeter® with FlukeView Software

Digital Scope, 15-Function Digital Multimeter & Recorder



The Fluke 123 is the ideal choice for troubleshooting industrial machinery, instrumentation, and power systems. Automatically recognizes signal patterns and sets up correct triggering, timing, and amplitude for stable displays.

- **Recorder:** dual-channel TrendPlot™
- **Digital Scope:** dual-input 20MHz oscilloscope with 1.25GS/sec. repetitive sampling rate
- **Digital Multimeter:** dual-input 5000-count True RMS meter with ohms, capacitance & temperature
- Size: 4.5"W x 2.0"D x 9.1"H • Weight: 5.8 lbs.

† Refurbished

FlukeView Software (Version 3.04)

- Documenting: transfer screens, waveforms & data to your PC for printing or importing to other programs
- Archiving: store and retrieve waveforms with text annotations and create your own library
- Analysis: gather valuable data and enable cursor measurement, extend recording of up to four user-selected measurements, upload waveforms and use cursors for detailed measurements
- Compatible with Windows® operation system

Part No.	Product No.	Price
203131CF	Fluke 123S †	$1,195.95

Fluke 124 40MHz Oscilloscope w/ 5000-Count Digital Multimeters and Paperless Recorder



222421CF

The compact ScopeMeter 124 is the rugged solution for industrial troubleshooting and installation applications. It's a truly integrated test tool, with oscilloscope, multimeter and "paperless" recorder in one affordable, easy-to-use instrument. FlukeView software helps you get more out of your Scopemeter by: **(A) Documenting** by transferring waveforms, screens and measurement data from the ScopeMeter to a PC; **(B) Adding** user text to individual ScopeMeter settings provides guidance to the operator when recalling a set-up; **(C) Archiving** creates a library of waveforms with your comments for easy reference and comparison; **(D) Storing** complete Replay cycles for analysis of waveform changes and memory content for back-up purposes; and **(E) Analyzing** use cursors, perform spectrum analysis or export data to other analysis programs.

- Dual-input 40MHz or 20MHz digital oscilloscope
- Two 5,000-count true-RMS digital multimeters
- A dual-input TrendPlot™ recorder
- Connect-and-View™ trigger simplicity for hands-off operation • Optically isolated RS-232 interface
- Shielded test leads for oscilloscope, resistance and continuity measurements
- 10:1 Voltage Probe included for reduced circuit loading • 600 V CAT III safety certified

Part No.	Product No.	1	5
222421CF	FLK-124	$1,494.95	$1,419.95
222412CF	FLK124S (w/ software)	1,794.95	1,705.19

Fluke 190 Series 200MHz ScopeMeters with 5000-Count Digital Multimeters

Color and B/W



222404CF

For the more demanding applications, the ScopeMeter 190 series high-performance oscilloscopes offer specifications usually found on more expensive bench instruments. With up to 200MHz bandwidth, 2.5 GS/s real-time sampling and a deep memory of 27,500 points per input; they're ideal for engineers who need the full capabilities of a high-performance oscilloscope in a handheld, battery-powered instrument.

- Dual-input – 200 or 100MHz bandwidth
- Up to 2.5 GS/s real-time sampling per input
- Connect-and-View™ automatic triggering and a full range of manual trigger modes
- Digital Persistence for analyzing complex dynamic waveforms like on an analog scope
- Fast display update rate for seeing dynamic behavior instantaneously
- Automatic capture and replay of 100 screens
- 27,500 points per input record length using ScopeRecord mode
- TrendPlot paperless chart recorder for trend analysis up to 22 days
- Up to 1000V independently floating isolated inputs
- Waveform reference for visual comparisons and automatic pass/fail testing of waveforms
- Vpwm function for motor drive and frequency inverter applications
- 1000 V CAT II and 600 V CAT III safety certified
- Four-hour rechargeable NiMH battery pack

211220CF: Includes FlukeView software

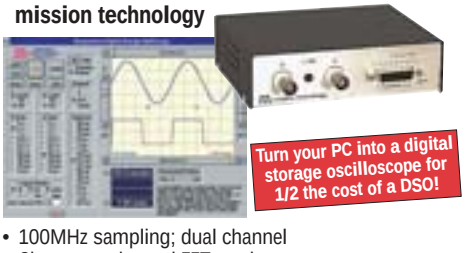
Includes: Test leads, probes and manual

Part No.	Product No.	1	5
222404CF	FLK-196C (100MHz) color	$2,698.95	$2,563.95
222383CF	FLK-199C (200MHz) color	2,998.95	2,848.95
222391CF	FLK-199B (200MHz) B&W	2,698.95	2,563.95
211220CF	FLK-199B/S (200MHz) †	2,495.95	2,295.95

† Refurbished

PC-MultiScope 20MHz 2-Channel Digital Oscilloscope

mission technology



- 100MHz sampling; dual channel
- Chart recorder and FFT mode
- 5mV to 5V per div.; 20MHz bandwidth; ext. trigger
- 0-4MHz sine and square wave signal generator
- Triple power supply; 5VDC @ 500mA and ±0-8VDC @ 250mA • One-year warranty
- Size: 4.3"L x 5.0"W x 1.5"H • Weight: 3.8 lbs.

Includes: Parallel port cable, AC adapter, alligator clip probe, Windows® 3.1/95/98 software

Part No.	Description	1	10
163230CF	PC-MultiScope 3	$579.95	$529.95

50MHz Digital PC-Based Oscilloscope, Spectrum Analyzer and Transient Recorder



- Sampling frequency: 1.25kHz–50MHz real-time; 1GHz repetitive
- Input impedance: 1MΩ/30pF
- Parallel Port Interface
- Inputs: 2 channels, 1 external trigger input
- Max. input voltage: 100V (AC and DC)
- Power required: 9V to 10V @ 1000mA (recommend P/N 100888CF, pg 55)

Oscilloscope:

- Timebase: 20ns–100ms per division
- Input sensitivity: 5mV–15V per division with auto step-function
- Recording length: 4096 samples per channel

Spectrum Analyzer:

- Frequency range: 0 to 25MHz

Transient Recorder:

- Time scale: 20ms/div–2000s/div
- Max. recording time: 9.4 hours/screen
- Max. number of samples: 100/s

System requirements: IBM compatible PC, Windows® 95/98/ME, SVGA card, mouse, printer port, CD-ROM

Includes: 2 test leads, PC parallel cable, manual and CD-ROM software

Part No.	Product No.	1	5
200184CF	PCS500AU	$478.95	$429.95

1GHz Spectrum Analyzers with Digital Display and RS-232 Interface



- Frequency ranges: 150kHz – 1GHz
- Fully digital phase-locked-loop design
- High frequency stability: ±10ppm
- Two markers for absolute and relative measurement with resolution of 0.1dB, 1kHz
- 9 save-and-recall memories
- Max. hold, average (2 – 32 traces), freeze, peak search, marker-to-center functions
- High span resolution to measure detailed signal: zero, and 2kHz – 100MHz/div in a 1-2-5 sequence
- Bandwidth resolution: 3kHz, 30kHz, 220kHz, 4MHz
- High input protection level: +30dBm continuous, ±25VDC
- Input impedance: 50Ω nominal
- FM/AM demodulator: WBFM 120kHz; MBFM 75kHz; NBFM 30kHz deviation
- Input voltage: 100/120/220/230VAC @ 50-60Hz
- RS-232 interface to PC • Two-year warranty
- Size: 12.2"W x 17.9"D x 5.9"H • Weight: 19.2 lbs.

229340CF:

- With tracking generator: frequency range of 150kHz – 1GHz; 0 – 50dBm amplitude range with 1dB resolution; <-30dBc harmonics; 50Ω nominal impedance

Includes: Operations manual

Part No.	Product No.	1	5
229315CF	GSP-810	$2,374.95	$2,256.25
229340CF	GSP-810TG	3,274.95	3,111.25

Detailed specifications for Test Equipment – *www.Jameco.com*

Pomona® 100MHz Probe Set



- Complete accessory kit included
- Attenuation: x1/x10
- Bandwidth: 15/100MHz (-3dB)
- Risetime: 23.33/3.5ns
- Input resistance: 1/10MΩ
- Capacitance: 64/10.5pF • 48" cable
- Compensation range: 10~60pF

Part No.	Product No.	Description	1	10
156451CF	4550B	Probe kit	$51.95	$46.95

Probe Master Oscilloscope Probes

Designed for use with Tektronix and Hewlett Packard oscilloscopes.



174473CF



212214CF

- 3 position switch: x1, ref, x10
- Bandwidth @ 3dB: 10MHz (x1); 150MHz (x10)
- Loading: 57pF, 1MegΩ (x1); 15pF, 10MegΩ (x10)
- Low-resistance gold contacts
- Cord length: 5'

174473CF: 7-piece kit
212214CF/212257CF: 25-piece kit

Part No.	Product No.	1	10
174473CF	4901-02 (150MHz)	$49.95	$44.99
212214CF	4915 (150MHz)	149.99	142.49
212257CF	4915A (250MHz)	159.99	151.99

Modular Oscilloscope Probes



22891CF



140687CF

- 60MHz, 100MHz, 250MHz
- Hook and pointed probes
- **216047CF/140687CF**: with IC test ground cover and spring ground contact
- Alligator clip ground wire
- Maximum input voltage: 600V
- BNC male connector • Length: 5'

	Bandwidth (±3dB)		Impedance (R/C)*	
	Attenuation		Attenuation	
Part No.	x1	x10	x1	x10
22891CF	6MHz	60MHz	1MΩ/180pF	10MΩ/22pF
216047CF	6MHz	100MHz	1MΩ/47pF	10MΩ/16pF
140687CF	6MHz	250MHz	1MΩ/150pF	10MΩ/14pF

* with 20pF oscilloscope input

Part No.	Mfr. Cross Ref. No.	1	10	50
22891CF	LF101E	$22.95	$20.79	$18.69
216047CF	HF-9100	34.95	29.95	26.95
140687CF	LF290	45.95	41.39	37.25

Opening an account is easy!!

Corporate Customers

Call 1-800-831-4242 for details today.

120MHz Frequency Counter



- Frequency and period measurement
- Frequency range: 1Hz to 120MHz
- Gate time: 0.1s, 1s, 10s
- 8-digit LED display (0.3" digit height) with Hz, kHz, MHz, s, ms, us, ns, and overflow
- Input sensitivity: 15mVrms 10Hz – 10MHz; 50mVrms at 120MHz
- Selectable low pass filter
- Impedance: 1MΩ, 35pF
- Time base oscillation frequency/aging rate: 10MHz ±1 PPM per month
- Input voltage: 100/120/220/230VAC @ 50-60Hz
- Size: 9.1"W x 11.0"D x 3.7"H • Weight: 3.8 lbs.
- Two-year warranty

Part No.	Product No.	1	5
229243CF	GFC-8010H	$249.95	$237.45

1.5GHz Frequency Counters

2 Channels



201873CF

- Input voltage: 115/230VAC @ 50-60Hz (switchable)
- Gate time: 0.01s, 0.1s, 1s, 10s
- 9-digit green LED display
- Size: 10.3"L x 10.0"W x 3.2"H
- One-year warranty

Includes: Fuse, manual and BNC cable

55790CF:
- Frequency range: 0.1Hz to 150MHz (A input); 50MHz to 1.5GHz (B input)
- Resolution: 0.1nHz to 10Hz (A input); 0.1Hz to 100kHz (B input)
- Frequency, period, totalize, RPM • Weight: 5.3 lbs.

201873CF: With Time Interval and Ratio
- Frequency range: 0.1Hz to 150MHz (A/B input); 50MHz to 1.5GHz (C input)
- Resolution: 1nHz to 10Hz
- Sensitivity: 20Vrms (A, B input); 30Vrms (C input)
- Impedance: 1MΩ < 40pF (A, B inputs); 50Ω (C input)
- Totalize, period & RPM function • Weight: 6.0 lbs.

Part No.	Product No.	1	5
55790CF	FC-7150	~~$359.95~~ $299.95	$259.95
201873CF	FC-7150U	342.95	325.95

2MHz Sweep Function Generator with Frequency Counter



- Frequency range: 0.02Hz–2MHz in 7 ranges
- Sweep width: 1:1 to 100:1; rate: 20ms to 25s (.5Hz-50Hz)
- Output impedance: 50Ω ±5%
- Frequency counter range: 0.2Hz to 50MHz
- Maximum input voltage: 150Vrms @ 1kHz
- Input voltage: 115/230VAC @ 50-60Hz (switchable)
- Size: 10.3"L x 10.0"W x 3.2"H
- Weight: 5.8 lbs. • One-year warranty

Includes: Probe and detachable power cord

Part No.	Product No.	1	5
94676CF	FG7002C	$329.95	$296.95

2.4GHz Programmable Universal Counter with RS-232 Interface



- Measures frequency, period, duty cycle, RPM, frequency ratio, difference frequency, time interval, and totalize
- Frequency ranges: 2.4GHz (Ch C); 120MHz (Ch A & B)
- Resolution: .00001Hz (Ch A/B); 100Hz (Ch C)
- Plots trend graph on LCD display
- Compare, relative error, and min./max. functions
- 8 set-up screens can be saved and retrieved from memory
- Gate times: 50ms to 10s (20 settings)
- Display: 128 x 64 pixel super twist LCD
- RPM measurement range: 0 to 600,000 RPM
- Duty cycle range: 0.01% to 99.99% with frequency range of 0 to 100kHz
- Channel A/B inputs: sensitivity of 25mV; input impedance of 1MΩ + 35µF capacitance; maximum input volts of 250V DC or AC peak
- Channel C input: sensitivity 25mVrms; input impedance of 50Ω, and maximum input voltage of 5VDC or AC peak
- RS-232 interface with PC software for controlling, displaying data, and data logging
- Input voltage: 85-270VAC @ 48-66Hz
- Size: 11.6"W x 11.0"D x 3.3"H
- Weight: 4.4 lbs.

Includes: Manual, power cord, BNC cable, RS-232 and software (98/2000/ME/XP compatible)

Part No.	Product No.	1	5
230560CF	C3100	$428.95	$407.55

2MHz & 10MHz Sweep Function Generators w/ Frequency Counter



192671CF

Function Generator
- Wave forms: sine, square, triangle, skewed, ramp, pulse & TTL level square
- Frequency: 2Hz to 2MHz in 7 ranges (192671CF); 1Hz to 10MHz (221911CF)
- Output amplitude: 2 to 20Vpp at open load; 1 to 10Vpp at 50Ω load
- Output impedance: 50Ω ±10%
- Offset variable range (max.): ±10VDC at open load
- Frequency sweep time: 20ms to 2s

Frequency Counter
- Measuring range: channel A: 1Hz to 20MHz; channel B: 20MHz to 2.7GHz
- Input sensitivity: channel A: 20mVRMS sinewave or 100mVp-p; channel B: 40mVRMS for 20MHz to 1.3GHz; 70mVrms for 1.3GHz to 2.7GHz
- Maximum input voltage: channel A: 35Vp-p; channel B: 3Vp-p
- Input impedance: channel A, 1MΩ; channel B, 50Ω
- Data logging and graphic software
- Size: 11.0"L x 8.2"W x 3.7"H • Weight: 13.4 lbs.

Includes: Coax & power cable, manual, serial cable and software

Part No.	Description	1	5
192671CF	2MHz/2.7GHz	~~$325.95~~ $319.95	$303.95
221911CF	10MHz/2.7GHz	439.95	417.95

Test Equipment

2MHz & 3MHz Function Generators w/ Frequency Counter

Function Generator



229251CF

- Wave forms: sine, triangle, square, TTL, and CMOS output; 229260CF has ramp
- Frequency ranges: **229251CF:** 0.2Hz – 2MHz in 7 ranges; **229260CF:** 0.3Hz – 3MHz in 7 ranges
- Output amplitude: >10Vp-p into 50Ω load
- Output impedance: 50Ω ±10%
- DC offset range: <-5V to > +5V into 50Ω load
- Voltage controlled frequency function
- Variable DC offset control

INSTEK



229260CF

Frequency Counter

- Input voltage: 115/230VAC @ 50-60Hz
- Weight: 4.4 lbs. • Two-year warranty

229251CF:

- 4-digit LCD display
- Ranges: 0.2Hz to 2MHz internal only; with resolution of 0.1Hz to 1kHz
- Size: 9.1"W x 11.0"D x 3.7"H

229260CF:

- 6-digit LCD display
- Ranges: INT/EXT switch, 0.3Hz to 3MHz internal and 5Hz to 150MHz external; resolution of 10nHz to 0.1Hz
- Size: 9.9"W x 11.5"D x 3.6"H

Includes: Power cord, operations manual and leads

Part No.	Product No.	Description	1	5
229251CF	GFG-8020H	2MHz	$259.95	$246.95
229260CF	GFG-8216A	3MHz	299.95	284.95

METEX® 4-in-1 Universal System

With Function Generator, Universal Counter, DC Power Supply & Digital Multimeter



Save bench space & $800!

- **Function generator** capable of generating seven forms of waves (sine, square, triangle, skewed sine, ramp, pulse, and TTL square wave) in seven frequency ranges from 0.2Hz to 2MHz
- **Universal counter** capable of measuring frequency ranges from 5Hz to 1.3GHz
- **DC power supply** capable of generating 5V @ 2A, 15V @ 1A fixed and 0 to 30V @ 0 to 2A variable
- **Digital multimeter** with ranges of: DC voltage (400mV to 100V), AC voltage (400mV to 750V), DC/AC current (40mA to 20A), resistance (400Ω to 40MΩ), capacitance (4nF to 400μF) and forward resistance of a semiconductor junction in kΩ
- Size: 14.5"W x 14.0"D x 7.0"H • Weight: 37 lbs.
- One-year warranty

Includes: Manual, cables and software

Part No.	Product No.	1	5
160864CF	MS9150	$549.95	$499.95

2MHz Function Generator



- Frequency range: 0.02Hz to 2MHz
- Waveforms: sine, triangle, square, ramp, TTL pulse, skewed sine
- Variable waveform/duty cycle symmetry
- DC offset voltage from 0 to ±10V; can be superimposed to output waveform
- Output voltage: 20Vp-p (open circuit), 10Vp-p (into 50Ω)
- Input voltage: 110V/220V 50-60Hz
- Size: 10.0"L x 8.0"W x 3.0"H • Weight: 5.4 lbs.
- One-year manufacturer's warranty

Includes: Cord, BNC to clip cable, fuse and manual

Part No.	Product No.	1	5	10
66069CF	FG8002	$189.95	$179.95	$169.95

3MHz Function Generator



WAVETEK Meterman

- Square, triangle, and sine waves; TTL and CMOS pulse outputs
- Frequency: 0.3Hz to 3MHz in 7 ranges
- Output impedance: 50Ω ±10%
- CMOS output level: 4Vpp, ±1Vpp to 14.5Vpp; ±0.5Vpp adjustable
- DC offset: <-5V to >+5V into 50Ω load
- Variable controlled frequency input
- Variable DC offset control
- Signal polarity invert button • Duty cycle control
- Size: 9.6"W x 11.5"D x 3.7"H • Weight: 4.4 lbs.

Part No.	Product No.	1	5
222594CF	FG2C	$258.95	$245.95

5MHz Function Generator

Engineered for high reliability and user convenience.



BK PRECISION

- Waveforms: sine, square, triangle, and ramp
- 0.5 to 5MHz
- 100% DC offset
- Variable duty cycle
- Output Impedance: 50Ω
- Coarse and fine tuning
- Size: 10.4"W x 11.7"D x 3.4"H
- Weight: 6.2 lbs. • Two-year warranty

Part No.	Prod. No.	Description	1	5
160469CF	BK4011A	0.5 to 5MHz	$314.95	$299.95

BK PRECISION 150kHz Sine/Square-Wave Audio Generator

Small and convenient, this audio generator can be used to test telco and audio equipment.



- 20Hz to 150kHz in 46 steps
- Low distortion R-C oscillator
- Variable output control
- Size: 5.9"L x 3.2"W x 0.8"H
- Output Impedance: 600Ω
- One-year manufacturer's warranty

Includes: 9VDC battery

Part No.	Product No.	Wt. (lbs.)	1	10
166334CF	BK3001	0.7	$78.95	$75.99

2MHz Sweep Function Generator



Protek

- Waveforms: sine, square, triangle, pulse, ramp
- Frequency ranges: 0.02Hz – 2MHz in 7 ranges
- Tuning range: 100:1 on each range
- DC offset and voltage controlled frequency (VCF) inputs
- Amplitude: 2Vp-p – 20Vp-p open circuit
- Output impedance: 50Ω ±5%
- Less than 2% sine wave distortion
- Variable symmetry: 1:1 to 4:1
- TTL sync output • Linear sweep mode
- 20ms to 2s variable sweep time
- Input voltage: 100/120/220/240VAC @ 48-66Hz
- Size: 8.8"W x 10.1"D x 3.3"H • Weight: 8.0 lbs.
- Two-year warranty

Part No.	Product No.	1	5
230594CF	B801	$244.95	$232.69

3MHz Sweep Function Generator with 150MHz Frequency Counter



- 6-digit green LED with 0.3" digit height
- Square, triangle, and sine waves; TTL and CMOS pulse outputs
- Frequency range: 0.3Hz to 3MHz in 7 ranges
- Impedance: 50Ω ±10%
- DC offset: <-5V to >+5V (into 50Ω load)
- CMOS output level: 4Vpp ±1Vpp to 14.5Vpp ±0.5Vpp adjustable
- Manual sweep selector operation
- Internal/external frequency counter switch selector
- Frequency counter range: 0.3Hz to 3MHz internal; 5Hz to 150MHz external
- Frequency counter impedance: 1MΩ /150pF
- Signal polarity invert button
- Variable duty cycle • Variable DCV offset
- Linear and logarithmic sweep
- Size: 9.6"W x 11.5"D x 3.6"H • Weight: 4.8 lbs.

WAVETEK Meterman

Part No.	Product No.	1	5
222586CF	FG3C	$498.95	$473.95

AC/DC Electrical Safety Tester



INSTEK

- 500VA AC output
- True RMS current readings
- ACW/DCW test: 0.1 – 5kV output voltage with ±3% accuracy
- Arc detection of 0.3 – 100mA on AC/DC
- Test time: 1 – 180 seconds or continual
- Voltage output adjustable during test period
- 3 ranges of adjustable current protection: over/under/none • Zero turn-on operating switch
- Automatic FAIL indicator of alarm lamp and buzzer
- 9-pin remote control for START, RESET
- Triple digital display output: 3½-digit LED display for voltage and current; 3-digit LED display for timer; 0.39" digit height
- Input voltage: 115/230VAC @ 50-60Hz
- Size: 13.0"W x 17.6"D x 5.9"H • Weight: 44.1 lbs.
- Two-year warranty

Part No.	Product No.	1	5
229374CF	GPT-815	$995.00	$945.25

Detailed specifications for Test Equipment – www.Jameco.com

Digital Multimeter Quick Selection Guide

* See indicated page for more details on each product

All measure DC Voltage, AC Voltage, Resistance and Current, except as noted

Handheld Digital Multimeters

Part No.	Best Sellers	Manufacturer No.	* Page #	Display Count	Analog Bargraph	RS-232 PC Interface	Autorange	True RMS	Capacitance	Inductance	Frequency	Temperature	Diode Test	Logic Test	Continuity Test	Transistor h_{FE} Test	Unit Price
119212CF	✔	JE110	154	2000										✔		✔	$19.95
192647CF		Wavetek/MM 10XL	150	2000										✔			49.90
222519CF		Wavetek/MM 30XR	150	2000										✔			59.49
220855CF		M83013	150	2000										✔		✔	9.95
220812CF		Mastech M300	153	2000			✔							✔			12.95
220759CF		Mastech MAS830L	153	2000										✔		✔	15.95
220821CF		Mastech M3900	153	2000										✔		✔	24.95
27115CF	✔	Metex M3800	152	2000										✔		✔	39.95
197958CF		Extech MV110	154	2000										✔		✔	38.95
220741CF		Mastech MAS838	153	2000									✔	✔		✔	24.95
197966CF		Extech MV120	154	2000						✔			✔	✔		✔	~~$69.95~~ 59.95
192604CF		Wavetek/MM 23XT	150	2000									✔	✔	✔	✔	59.95
141250CF		BelMerit DX405	154	2000						✔		✔		✔		✔	~~$74.95~~ 58.55
220775CF		Mastech MY64	153	2000						✔		✔	✔	✔		✔	45.95
177480CF	✔	AEEC2890	154	2000						✔		✔	✔	✔		✔	49.95
220791CF		Mastech M9508	153	2000						✔		✔	✔	✔		✔	56.95
220783CF		Mastech M9704	153	2000						✔		✔	✔	✔		✔	56.95
147096CF		BelMerit DX460L	154	2000						✔	✔	✔		✔	✔	✔	99.95
160813CF		Metex M3640D	152	2000	✔	✔				✔		✔	✔	✔		✔	~~$99.95~~ 83.79
155491CF		Metex ME-22T	152	2000	✔	✔		✔				✔	✔	✔	✔	✔	89.95
192639CF		Wavetek/MM DM78A	150	3200	✔		✔							✔		✔	29.95
101936CF		EZ Digital DM333	154	3200	✔		✔							✔		✔	67.95
182035CF		Fluke 73-III	149	3200	✔		✔							✔		✔	148.95
192612CF		Wavetek/MM 35XL	150	3200	✔		✔			✔				✔		✔	64.95
220767CF		Mastech MY68	153	3260	✔	✔				✔			✔	✔		✔	54.95
220804CF		Mastech M320	153	4000										✔		✔	26.95
192583CF		Wavetek/MM AC40A	158	4000			✔	(No DC current)								✔	74.95
222501CF		Wavetek/MM DM9	150	4000			✔							✔		✔	39.49
221989CF		Metex P-09EF	151	4000			✔							✔		✔	39.95
221971CF		Metex P-10	151	4000			✔			✔		✔		✔		✔	39.95
216514CF		Metex ME-31	152	4000	✔	✔	✔							✔		✔	59.95
220724CF		Wavetek/MM 34XR	150	4000						✔		✔	✔	✔		✔	108.95
211650CF		Extech MN26	154	4000			✔			✔		✔	✔	✔		✔	39.95
222535CF		Wavetek/MM 33XR	150	4000	✔					✔		✔	✔	✔		✔	89.49
221997CF		Metex M327OD	151	4000	✔		✔			✔		✔		✔		✔	89.95
222308CF		Metex ME-32	152	4000	✔	✔				✔			✔	✔		✔	79.95
216522CF		Metex ME-32F	152	4000	✔	✔	✔			✔			✔	✔		✔	79.95
215589CF		Metex M3890D	162	4000	✔	✔	✔			✔		✔	✔		✔	✔	99.95
117372CF		Metex M3850D	152	4000	✔	✔	✔			✔		✔	✔	✔		✔	109.95
137461CF	✔	Metex M3860D	152	4000	✔	✔	✔	✔	✔	✔	✔	✔			✔	✔	149.95
198694CF		Wavetek/MM DM73B	150	4200	✔			(No current)								✔	~~$49.95~~ 44.95
190967CF		Fluke 110 (No I)	149	6000	✔		✔	✔	✔		✔		✔	✔			108.95
190975CF	✔	Fluke 111	149	6000	✔		✔	✔	✔		✔		✔	✔			128.95
185527CF	✔	Fluke 112	149	6000	✔		✔	✔	✔		✔		✔	✔			148.95
192655CF		Fluke 175	149	6000	✔		✔	✔	✔		✔		✔	✔			168.95
192663CF	✔	Fluke 177	149	6000	✔		✔	✔	✔		✔		✔	✔			193.95
185535CF	✔	Fluke 179	149	6000	✔		✔	✔	✔		✔	✔	✔	✔			~~$215.95~~ 208.95
222560CF		Wavetek/MM HD160B	150	10,000	✔		✔			✔				✔		✔	229.49
222527CF		Wavetek/MM 37XR	151	10,000	✔		✔	✔	✔	✔	✔	✔		✔	✔	✔	129.49
222543CF		Wavetek/MM 38XR	151	10,000	✔	✔	✔	✔		✔		✔	✔	✔		✔	149.49
136590CF	✔	Mastech MY65	153	20,000						✔		✔				✔	✔	69.95
144872CF		Metex M4640A	152	20,000	✔	✔				✔		✔		✔		✔	✔	139.95
222375CF		Fluke 187	149	50,000	✔		✔			✔		✔	✔	✔				378.95
185201CF	✔	B&K BK5380	154	50,000	✔		✔	✔	✔		✔			✔		✔		149.99
182043CF	✔	Fluke 189	149	50,000	✔		✔	✔	✔		✔	✔	✔		✔			398.95

Fluke 73 Series III 3200-Count Analog/Digital Multimeter



- 3200-count digital display with 31 segment analog bar graph
- Cat II 600V rating with overvoltage protection
- Automatic touch hold
- Default auto range mode
- Resolution: 100µV maximum
- **DC/AC voltage ranges:** 320mV – 600V
- **DC/AC current ranges:** 320mA – 10A
- **Resistance ranges:** 320Ω – 32MΩ
- Diode and continuity test • Weight: 2.0 lbs.

Part No.	Model No.	1	5
182035CF	Fluke 73 III	$148.95	$138.95

Fluke 110 Series 6000-Count DMMs



185527CF

- Basic DC accuracy of 0.7%
- True RMS reading • Autoranging
- Min./max./average functions
- CAT III 600V rated
- Resolution: 1mV maximum
- **DC/AC voltage ranges:** 6V – 600V
- **Resistance ranges:** 600Ω – 40MΩ
- Also capacitance, frequency and continuity
- Size: 11.8"L x 7.0"W x 3.0"H • Weight: 1.3 lbs.

185527 (Fluke 112): • Backlight display

Part No.	Model No.	AC current	DC current	1	10
190967CF	Fluke 110	—	—	$108.95	$103.49
190975CF	Fluke 111	10A	6A/10A	128.95	122.95
185527CF	Fluke 112	10A	6A/10A	148.95	141.95

Fluke 175/177/179 6000-Count DMMs



185535CF

- Min./max./average functions
- Auto hold and manual hold
- IEC 1010 rating Cat IV 600V/ Cat III 1000V
- Resolution: 100µV maximum
- **DC/AC voltage ranges:** 600mV – 1000V
- **DC/AC current ranges:** 60mA – 10A
- **Resistance ranges:** 600Ω – 50MΩ
- Also capacitance and frequency
- Size: 6.3"L x 3.3"W x 9.2"H • Weight: 1.5 lbs.

185535CF (Fluke 179): • Temperature: -40 to +400˚C

Part No.	Model No.	DC Accuracy	1	5
192655CF	Fluke 175	0.15%	$168.95	$159.95
192663CF	Fluke 177	0.09%	193.95	184.95
185535CF	Fluke 179	0.09%	~~$215.95~~ 208.95	198.49
214308CF	Fluke 808K Temperature probe		19.95	18.95

Fluke 187/189 50,000-Count Analog/DMMs



182043CF

- Digital and analog bar graph display
- Backlight with 2 brightness levels
- Fast auto range • AC/DC true RMS
- Resolution: 1µV maximum
- Resistance range: 500Ω – 500MΩ
- **DC/AC voltage ranges:** 50mV – 1000V
- **DC/AC current ranges:** 500µA – 10A
- Also capacitance, frequency & temp.
- Conductance, diode testing and continuity functions • Wt.: 2.0 lbs.
- Data logging: 288 intervals stored; 100 readings (182043CF only)
- Size: 8.0"L x 3.9"W x 2.0" Thick

Part No.	Model No.	Resistance Ranges	1	5
222375CF	Fluke 187	500Ω-500MΩ	$378.95	$359.95
182043CF	Fluke 189	500Ω-500MΩ	398.95	378.95
214308CF	Fluke 808K Temperature probe		19.95	18.95

Test Equipment

7-Function 2000-Count Multimeter



- Unique voltage Safety Tester™
- 7 function/22 ranges & 6 range volt tester
- Large 17mm (.67") display
- Resolution: 0.1mV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200V – 750V
- **DC current ranges:** 200µA – 10A
- **Resistance ranges:** 200Ω – 20MΩ
- Safety tester: 6, 12, 24, 50, 110 and 220 volts
- Diode test and continuity beeper
- Size: 2.8"W x 1.3"D x 6.1"H • One-year warranty

Part No.	Product No.	1	10	25
192647CF	10XL	$49.90	$47.45	$44.95

2000-Count Multimeter With Non-Contact Voltage & Battery Tester



- 9 functions, 26 ranges
- 3½-digit LCD display
- Resolution: 100µV maximum
- **DC/AC voltage ranges:** 200mV – 600V
- **DC/AC current ranges:** 200µA – 10A
- **Resistance ranges:** 200Ω – 20MΩ
- **Battery tester ranges:** 1.5V – 9V
- **Non-contact voltage detector ranges:** 70VAC – 600VAC
- Diode and continuity test
- Min/Max, data hold
- CAT III 300V, CAT II 600V rated
- Size: 3.5"W x 2.4"D x 7.7"H • Weight: 1.0 lb.

Includes: Spare fuse, test leads, and 9V battery

Part No.	Product No.	1	5
222519CF	30XR	$59.49	$56.49

10-Function 2000-Count Multimeter



- 10 functions/28 ranges & 4 voltage testers
- Unique voltage Safety Tester®
- Resolution: 0.1mV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 750V
- **DC/AC current ranges:** 200µA – 10A
- **Resistance ranges:** 200Ω – 2000MΩ
- **Temperature:** -20˚ to 750˚C (-4˚ to 1400˚F)
- NPN/PNP transistor, TTL/CMOS logic and diode test • Data hold
- Size: 3.1"W x 1.5"D x 7.2"H • Continuity beeper

Part No.	Product No.	1	10	25
192604CF	23XT	$59.95	$50.99	$38.25

Detailed specifications for Test Equipment
www.Jameco.com

5-Function 3200-Count Pocket Multi-Tester



- 5 functions, 15 ranges
- 3¾-digit LCD display w/ bargraph
- Resolution: 100µV maximum
- **DC voltage ranges:** 320mV – 450V
- **AC voltage ranges:** 3.2V – 450V
- **Resistance ranges:** 320Ω – 32MΩ
- Diode and continuity test
- Auto power off for longer battery life
- CAT I 600V, CAT II 300V rated • Data hold
- Size: 2.2"W x 0.4"D x 4.3"H • Weight: 0.2 lbs.

Includes: Manual, case and battery

Part No.	Product No.	1	10
192639CF	DM78A	$29.95	$26.99

8-Function 3200-Count Multimeter



- 8 functions/26 ranges
- Digital & analog bar graph display
- Long 1000 hour battery life with auto off for power saving
- Resolution: 0.1mV maximum
- **DC voltage ranges:** 320mV – 600V
- **AC voltage ranges:** 3.2V – 600V
- **DC current ranges:** 320µA – 10A
- **AC current ranges:** 320µA – 10A
- **Resistance ranges:** 320Ω – 32MΩ
- **Capacitance ranges:** 32µF – 32mF
- Diode test and continuity beeper
- Size: 2.8"W x 1.3"D x 6.1"H • Data hold
- One-year warranty

Part No.	Product No.	1	10
192612CF	35XL	$64.95	$58.49

8-Function 4000-Count Multimeter with Battery Tester



- 8 functions, 19 ranges
- 3¾-digit LCD display
- Resolution: 1mV maximum
- **DC/AC voltage ranges:** 4V –600V
- **DC/AC current ranges:** 400mA
- **Resistance ranges:** 4000Ω – 40MΩ
- **Battery tester ranges:** 1.5V – 9.0V
- Diode and continuity test
- Auto ranging
- Special ranges to test household batteries with Go/NoGo LED
- CAT II 600V rated
- Size: 3.1"W x 1.6"D x 5.5"H
- Weight: 0.6 lbs.

Includes: Spare fuse, test leads, and 9V battery

Part No.	Product No.	1	5
222501CF	DM9	$39.49	$37.49

4200-Count Probe-Style Pen Meter



- Unique "Pen" Style DMM that allows easy, one-hand operation
- Auto power off
- **Resistance ranges:** 340Ω – 34MΩ
- **VAC ranges:** 3.4V – 600V
- Superior 0.5% accuracy
- Size: 1.4"W x 1.1"D x 7.8"H
- Resolution: 0.1mV max.
- **VDC ranges:** 340mV – 600V
- Analog bar graph
- Continuity beeper
- One-year warranty

Includes: Alligator clip, ground test lead, spare probe tip and batteries

Part No.	Product No.	Size (WxDxH)	1	10
198694CF	DM73B	1.4" x 1.1" x 7.8"	~~$49.95~~ $44.95	$41.49

11-Function 4000-Count Multimeter



- 11 functions/32 ranges
- Resolution: 100µV maximum
- **DC voltage ranges:** 400mV – 1000V
- **AC voltage ranges:** 400mV – 750V
- **DC/AC current ranges:** 400µA – 10A
- **Resistance ranges:** 400Ω – 40MΩ
- **Capacitance ranges:** 4µF – 4000µF
- **Temperature ranges:** -20˚C to 1000˚C (-4˚F to 1832˚F) • Auto power off
- **Frequency:** 4kHz – 40MHz
- Duty cycle & continuity test • Holster with strap
- MIN./MAX., data hold and range lock
- CAT III 600V, CAT II 1000V • Weight: 1.0 lb.
- Size: 7.8"W x 3.6"D x 2.4"H • Three-year warranty

Part No.	Product No.	1	10
220724CF	34XR	$108.95	$103.55

4000-Count Multimeter with Temperature, Capacitance and Frequency Measurements



- 3¾-digit LCD display with 41-segment analog bargraph
- 10 functions, 33 ranges
- Resolution: 100µV maximum
- **DC voltage ranges:** 400mV – 1000V
- **AC voltage ranges:** 400mV – 750V
- **DC/AC current ranges:** 400µA – 10A
- **Resistance ranges:** 400Ω – 4MΩ
- **Capacitance ranges:** 4µF – 4000µF
- **Temperature ranges:** -20˚C to 1000˚C (-4˚F to 1832˚F)
- **Frequency ranges (auto-ranging):** 4kHz – 40MHz
- Diode and continuity test
- Auto power off to save battery life
- Input warning tone when test leads are in wrong jack
- CAT III 600V, CAT II 1000V rated
- Min/Max, relative, peak and data hold
- Size: 3.5"W x 2.3"D x 7.7"H • Weight: 0.9 lbs.

Includes: Spare fuse, test leads and 9V battery

Part No.	Product No.	1	5
222535CF	33XR	$89.49	$84.99

7-Function 10,000-Count Heavy-Duty Multimeter



- 7 functions, 19 ranges
- 4-digit LCD display with bargraph
- Resolution: 100µV maximum
- **DC voltage ranges:** 1V – 1500V
- **AC voltage ranges:** 10V – 1000V
- **DC/AC current ranges:** 10mA – 10A
- **Resistance ranges:** 1kΩ – 40MΩ
- Diode and continuity test
- Auto ranging
- True RMS measuring
- Unique live voltage Safety Tester
- Special sealing for environment and water proofing
- CAT III 1000V rated
- Size: 3.9"W x 2.3"D x 8.8"H • Weight: 1.4 lbs.

Includes: Spare fuse, test leads, and 9V battery

Part No.	Product No.	1	5
222560CF	HD160B	$229.49	$217.99

10,000-Count True RMS Multimeter with Decibel Measurement, Component and Logic Test



- 13 functions, 42 ranges
- 4-digit LCD display with 41-segment analog bargraph
- Resolution: 100µV maximum
- **DC voltage ranges:** 1000mV – 1000V
- **AC voltage ranges:** 1000mV – 750V
- **DC/AC current ranges:** 100µA – 10A
- **Resistance ranges:** 1000Ω – 40MΩ
- **Capacitance ranges:** 40nF – 400µF
- **Inductance ranges:** 4mH – 40H
- **Frequency ranges:** 100Hz – 10MHz
- **Decibel ranges:** -13dBM - +50dBM
- Duty Cycle: 0% to 90%
- Logic, continuity, diode test
- Input warning tone when test leads are in wrong jack
- Min/Max, average, relative, peak, and data hold
- True RMS
- Auto power off to save battery life
- CAT III 600V and CAT II 1000V rated
- Size: 7.8"H x 3.6"W x 2.4"D • Weight: 1.0 lb.

Includes: Spare fuse, test leads, and 9V battery

Part No.	Product No.	1	5
222527CF	37XR	$129.49	$122.99

13-Function 10,000-Count True RMS Multimeter



- 13 functions, 43 ranges
- 4-digit LCD display with 41-segment analog bargraph
- Resolution: 100µV maximum
- **DC voltage ranges:** 1000mV – 1000V
- **AC voltage ranges (True RMS):** 1000mV – 750V
- **AC/DC voltage ranges:** 1000mV – 750V
- **DC/ AC current ranges:** 100µA – 10A
- **Resistance ranges:** 1000Ω – 40MΩ
- **Capacitance ranges:** 40nF – 400µF
- **Temperature ranges:** -20˚C - +1300˚C (-4˚F - +2372˚F)
- **Frequency ranges:** 100Hz – 10MHz
- **Decibel ranges:** -13dBM - +50dBM
- Diode and continuity test
- Duty Cycle: 0% to 90%
- Min/Max, average, relative, peak and data hold
- Auto power off and auto-ranging
- Input lead warning
- Optical PC interface (P/N 222551CF): with the optional software and RS-232 cable, the multimeter can be used for real-time data acquisition using any industry standard Windows® PC
- CAT IV 600V, CAT III 1000V rated
- Size: 7.8"H x 3.6"W x 2.4"D
- Weight: 1.0 lb.

Includes: Test leads with threaded alligator clips, temperature adaptor, K-type thermocouple, 9V battery, spare fuse, and manual

Part No.	Product No.	1	5
222543CF	38XR	$149.49	$141.99
222551CF	38SW (software/cable)	19.49	18.49

Wavetek Meterman Test Lead Kits

FLUKE



214332CF

214332CF: Wavetek Meterman Basic DMM Test Lead Kit

- Silicone lead wires, 48" long, red and black
- Standard probe tips, red and black
- Alligator clips, red and black
- Spade lugs, red and black



222471CF

222471CF: Wavetek Meterman Deluxe DMM Test Lead Kit

- Silicone lead wires, 48" long, red and black
- Standard probe tips, red and black
- Alligator clips, red and black
- Spade lugs, red and black
- Spring loaded crimp tips, red and black
- Red tip length extender



222463CF

222463CF: Fluke Deluxe Electronic Test Lead Kit

Recommended for use in low energy, electronic test applications that require fine probing easily achievable with larger industrial probes. CAT III 300V rated. Compatible with Fluke and other multimeters that accept safety shrouded, standard diameter banana connectors.

One pair (red & black) of each of the following:

- One meter long test lead with a safety shrouded, right angle banana connector on one end and a stainless steel test probe on the other end
- Insulated probe tip extender
- Modular test probe w/ banana connector in handle
- Modular hook-style clip test lead w/ banana connector
- Modular pinch-style clip test lead with banana connector • Insulated alligator clip
- Modular alligator clip with banana connector
- Slide-on IC probe tip adapter and test lead couplers
- Bare spade lug with banana connector

222455CF: Fluke Basic Electronic Test Lead Kit



222455CF

One pair (red & black) of each of the following:

- One meter long test lead with a safety shrouded, right angle banana connector on one end and a stainless steel test probe on the other end
- Insulated probe tip extender
- Insulated alligator clip



222447CF

222447CF: Fluke SureGrip Industrial Test Lead Kit

- 1000 V CAT III, 600 V CAT IV rated.

Includes: one pair (red and black):

- AC220 insulated alligator clips: nickel plated jaws grip objects up to 3/8" (9.5mm); blunt tip grabs round screw heads
- TP220 industrial test probes: sharp, 1/2" (12mm) stainless steel tip provides reliable contact; flexible finger barrier improves grip
- TL222 industrial right angle test leads: 1.5 meter silicone insulated wire resists heat and cold; superior strain relief

Part No.	Product No.	1	5
214332CF	DL243C	$34.49	$32.79
222471CF	DL248C	57.49	54.59
222463CF	TL81A	98.95	93.95
222455CF	TL80A	38.95	36.95
222447CF	TL220	44.95	42.69

METEX® 4000-Count Pocket Multimeters



221971CF

- 3¾-digit LCD display with 0.46" digit height
- Resolution: 100uV maximum
- Diode test
- Continuity buzzer
- Battery check
- Built-in test leads and battery
- Auto ranging and auto polarity indication
- Size: 4.6"H x 2.9"W x 0.7"D

221971CF:

- 10 functions, 13 ranges
- **DC voltage ranges:** 400mV – 400V
- **AC voltage ranges:** 4V – 400V
- **DC/AC current ranges:** 400µA – 400mA
- **Resistance ranges:** 400Ω – 40MΩ
- **Frequency ranges:** 10Hz – 10MHz
- **Capacitance ranges:** 40nF – 40µF
- Duty measurement of 100%



221989CF

221989CF:

- 6 functions, 7 ranges
- **DC/AC voltage ranges:** 400mV – 400V
- **DC current ranges:** 400mA
- **Resistance ranges:** 400Ω– 40MΩ
- **Electric Field Test ranges:** 50VAC – 400VAC, 50-60Hz

Part No.	Product No.	1	10	25
221971CF	P-10	$39.95	$37.95	$35.95
221989CF	P-09EF	39.95	37.95	35.95

4000-Count Multimeter With Dual Display and Bargraph



- 10 functions, 16 ranges
- 3¾-digit LCD display with 43-segment bargraph and dual display
- Resolution: 100µV maximum
- **DC voltage ranges:** 400mV – 1000V
- **AC voltage ranges:** 4V – 750V
- **DC/AC current ranges:** 400µA – 20A
- **Resistance ranges:** 400Ω – 40MΩ
- **Capacitance ranges:** 4nF – 400µF
- **Frequency ranges:** 4kHZ – 4MHz
- Diode, continuity, h_{FE} test
- Dual display for related readings
- Data-hold, range-hold, auto/min/max-hold and relative offset
- Memory and recall for 10 values
- Auto-ranging and auto polarity indication
- Size: 7.1"H x 3.3"W x 1.3"D

METEX®

Includes: Test leads and battery

Part No.	Product No.	1	10
221997CF	M-3270D	$89.95	$85.49

Call 1-800-831-4242, Fax 1-800-237-6948

Order Anytime 24x7x365

www.Jameco.com

Detailed specifications for DMMs
www.Jameco.com

METEX® 2000-Count Multimeter

0.6" Digit Height • LCD Readout



- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 700V
- **DC/AC current ranges:** 20µA – 20A
- **Resistance ranges:** 200Ω – 20MΩ
- Diode test and continuity beeper
- Auto zeroing
- Input impedance: 10MΩ
- Surge protection up to 3kV
- See page 160 for compatible leads (P/Ns: 77745CF, 21856CF, 21864CF)
- Size: 3.5"W x 1.3"D x 6.8"H
- Weight: 1.2 lbs.
- One-year warranty

Includes: Probes, carrying case, manual & 9V battery

Part No.	Product No.	1	10	50
27115CF	M3800	**$39.95**	**$35.95**	**$32.49**

2000-Count Multimeter w/ RS-232, Analog Bar and Temperature



- 3½-digit LCD (.65" digit height) with analog bar
- Data hold
- RS-232C computer interface
- True RMS
- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 750V
- **DC/AC current ranges:** 2mA – 20A
- **Resistance ranges:** 200Ω – 2000MΩ
- **Frequency ranges:** 2kHz – 20MHz
- **Temperature:** -40˚C to +1200˚C @ 1˚C resolution
- Diode, transistor h_{FE} and logic test and continuity test
- One-year warranty
- Size: 3.0"W x 1.5"D x 7.2"H
- Weight: 1.9 lbs.

Includes: Operating manual, probes, K-type thermocouple, 9V battery and software

Part No.	Product No.	1	10	25
155491CF	ME-22T	**$89.95**	**$79.95**	**$71.95**

2000-Count Multimeter w/ RS-232 & Dual Display



- Dual displays for comparative measurements
- 3½-digit LCD w/ 2000 counts (.65" digit height)
- Auto/min/max/data hold function
- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 750V
- **DC/AC current ranges:** 2mA – 20A
- **Resistance ranges:** 200Ω – 2000MΩ
- Tests continuity, diode, transistor h_{FE}, frequency, capacitance and temperature
- Size: 3.2"W x 1.2"D x 7.1"H • Weight: 1.8 lbs.
- One-year warranty

Includes: PC interface cable, probes, temperature probe, manual, software and 9V battery

Part No.	Product No.	1	10	25
160813CF	M3640D ~~$99.95~~	**$83.79**	**$76.19**	**$69.25**

4000-Count Multimeter with RS-232 and Analog Bar



- 3¾-digit LCD display with analog bar (0.6" digit height)
- RS-232 computer interface
- Automatic polarity indication
- Data hold/range hold function
- Resolution: 100uV maximum
- **DC voltage ranges**: 400mV-1000V
- **AC voltage ranges**: 400mV-750V
- **DC/AC current ranges**: 4mA-20A
- **Resistance ranges**: 400Ω-4MΩ
- Diode and continuity test
- Size: 3.3"W x 1.5"D x 7.3"H
- Weight: 1.9 lbs.

Includes: Probes, 9V battery, software, RS-232 cable and manual

Part No.	Product No.	1	10
216514CF	ME-31	**$59.95**	**$53.95**

4000-Count Multimeters w/ RS-232, Analog Bar and Temperature



216522CF (reading in˚F only)

- 3¾-digit LCD display (0.6" digit height) with bargraph
- Automatic polarity indication
- Range hold function
- RS-232 computer interface
- Resolution: 100µV max.
- **DC voltage ranges**: 400mV – 1000V
- **AC voltage ranges**: 400mV – 750V
- **DC/AC current ranges**: 4mA – 20A
- **Resistance ranges**: 400Ω – 4MΩ
- **Capacitance ranges**: 4nF – 400nF
- **Temperature ranges**: -4˚F – 2000˚F
- Continuity, diode and transistor h_{FE} test
- Size: 3.2"W x 1.5"D x 7.3"H • Weight: 1.7 lbs.

222308CF: same as above except with temperature measurement in ˚C only

Includes: Probes, K-type temperature probe, software, 9V battery and manual

Part No.	Product No.	Description	1	10
216522CF	ME-32F	˚F	**$79.95**	**$69.95**
222308CF	ME-32	˚C	**79.95**	**75.95**

4000-Count Multimeter w/ RS-232, Temperature & Autorange



- 3¾-digit LCD (0.63" digit height)
- RS-232C computer interface
- Resolution: 100µV max.
- **DC voltage ranges:** 400mV – 1000V
- **AC voltage ranges:** 400mV – 750V
- **DC/AC current ranges:** 400µA – 20A
- **Resistance ranges:** 400Ω – 40MΩ
- **Temperature:** -40˚C to +1200˚C
- Diodes and continuity • Data hold switch
- Measures transistor h_{FE}, frequency, and capacitance
- Autoranging all scale settings • One-year warranty
- Size: 3.3"W x 1.8"D x 7.2"H • Weight: 1.8 lbs.

Includes: Manual, software, RS-232 interface cable, temperature probe and probes

Part No.	Product No.	1	10	25
117372CF	M3850D	**$109.95**	**$99.95**	**$89.95**

4000-Count Multimeter w/ RS-232, Dual Display, Inductance & True RMS



- Dual displays for comparative measurements
- 3¾-digit LCD (0.63" digit height)
- True RMS
- Resolution: 100µV maximum
- **DC voltage ranges:** 400mV - 1000V
- **AC voltage ranges:** 400mV – 750V
- **DC/AC current ranges:** 400µA – 20A
- **Resistance ranges:** 400Ω – 40MΩ
- **Temperature:** -40˚C to +1200˚C; 1˚C resolution • Weight: 1.9 lbs.
- Measures inductance, capacitance, transistor h_{FE} and frequency
- Computer interface (RS-232C) w/ software & cable
- Autoranging all measurement settings
- Size: 3.3"W x 1.8"D x 7.2"H • One-year warranty

Includes: 9V battery and software

Part No.	Product No.	1	10
137461CF	M3860D	**$149.95**	**$134.99**

20,000-Count Multimeter w/ RS-232 & Multi-Display



- 0.63" digit height
- LCD readout
- Multi-display: 4 simultaneous displays for relative and comparative measurements
- Resolution: 10µV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 750V
- **DC/AC current ranges:** 2mA – 20A
- **Resistance ranges:** 200Ω – 20MΩ
- **Capacitance ranges:** 20nF – 200µF
- **Frequency ranges:** 20kHz – 2MHz
- Diode/continuity: measures forward resistance of a semiconductor junction in kΩ a test current of approximately 1mA
- Measures transistor h_{FE}
- Size: 3.3"W x 1.5"D x 7.5"H • Weight: 2.0 lbs.
- LCD size: 2.4"W x 1.3"H • One-year warranty

Includes: Software, test leads, PC interface cable, manual and 9V battery

Part No.	Product No.	1	10
144872CF	M4640A	**$139.95**	**$125.95**

30-Day Money-Back Guarantee

If you're not satisfied, we'll take it back!

Details on page 226.

Detailed specifications for Test Equipment
www.Jameco.com

Extremely Low Cost 7-Function 2000-Count Multimeter



- 3½-digit LCD display (0.5" digit height)
- Resolution: 100µV maximum
- **DC voltage ranges:**200mV – 500V
- **AC voltage ranges:** up to 500V
- **DC current ranges:** 200µA – 10A
- **Resistance ranges:** 200Ω – 2000kΩ
- Diode, continuity and transistor h_{FE} test
- Size: 2.7"W x 1.0"D x 5.0"H

Part No.	Product No.	1	10	25
220855CF	M830B	$9.95	$9.45	$8.99

2000-Count Auto-Range Pocket Multimeter



- 3½-digit LCD display (0.43" digit height)
- Resolution: 100µV maximum
- **DC voltage ranges:** 2V – 500V
- **AC voltage ranges:** 200V – 500V
- **DC current ranges:** 200mA
- **Resistance ranges:** 2kΩ – 2000kΩ
- Diode and continuity test
- Size: 2.7"W x 0.8"D x 4.7"H

Part No.	Product No.	1	10	25
220812CF	M300	$12.95	$12.29	$11.69

8-Function 2000-Count Multimeter



- 8-functions/30 ranges
- 3½-digit LCD display (0.8" digit height)
- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 700V
- **DC/AC current ranges:** 20µA – 10A
- **Resistance ranges:** 200Ω – 20MΩ
- Diode, continuity and transistor h_{FE} test
- CAT II 1000V and CAT III 600V rated
- Size: 3.4"W x 1.3"D x 6.8"H

Part No.	Product No.	1	10	25
220821CF	M3900	$24.95	$23.69	$22.55

2000-Count Multimeter w/ Frequency & Temperature Measurements



- 3½-digit LCD display (1.0" digit height)
- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 700V
- **DC/AC current ranges:** 200µA – 10A
- **Resistance ranges:** 200Ω – 200MΩ
- **Capacitance ranges:** 2nF – 20µF
- **Frequency ranges:** up to 20kHz
- **Temperature ranges:** -20˚C - +1000˚C
- Diode, continuity, and transistor h_{FE} test
- Tilting LCD display • Hold data button
- Size: 4.0"W x 1.8"D x 8.0"H

Includes: Test leads and K-type thermocouple

Part No.	Product No.	1	10	25
220791CF	M9508	$56.95	$54.15	$51.45

2000-Count Multimeter w/ Temperature Measurement



- 8 function/17 ranges
- 2000-count 3½-digit LCD display (0.6" digit height)
- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV – 600V
- **AC voltage ranges:** 200V – 600V
- **DC current ranges:** 2mA – 10A
- **Resistance ranges:** 200Ω – 2MΩ
- **Temperature ranges:** -20˚C - +1000˚C
- Diode, transistor h_{FE}, and continuity test
- Data hold switch
- Size: 3.0"W x 1.4"D x 5.7"H

Includes: Test leads, and temperature probe

Part No.	Product No.	1	10	25
220741CF	MAS838	$24.95	$23.69	$22.49

2000-Count Multimeter with Diode and h_{FE} Test



- 2000-count 3½-digit LCD display (0.6" digit height)
- 7 function/17 ranges
- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV – 600V
- **AC voltage ranges:** 200V – 600V
- **DC current ranges:** 200µA – 10A
- **Resistance ranges:** 200Ω – 2MΩ
- Diode, continuity, and transistor h_{FE} test
- Data hold switch & backlight button
- Size: 3.0"W x 1.4"D x 5.7"H

Part No.	Product No.	1	10	25
220759CF	MAS830L	$15.95	$15.15	$14.39

2000-Count Multimeter w/ Digital & Analog Pointer Display, Frequency & Temperature Measurements



- 3½-digit LCD display (0.7" digit height) with analog pointer
- Resolution: 100µV maximum
- **DC/AC voltage ranges:** 200mV – 600V
- **DC/AC current ranges:** 2mA – 200mA
- **Resistance ranges:** 200Ω – 20MΩ
- **Capacitance ranges:** 2nF – 20µF
- **Frequency ranges:** up to 20kHz
- **Temperature ranges:** -20˚C to +1000˚C
- Diode, continuity, and transistor h_{FE} test
- Zero adjustment knob for analog pointer display
- Built-in test leads • Size: 4.0"W x 1.5"D x 7.6"H

Includes: K-type thermocouple

Part No.	Product No.	1	10	25
220783CF	M9704	$56.95	$54.15	$51.45

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Detailed specifications for DMMs
www.Jameco.com

2000-Count Multimeter w/ Temperature & Frequency Measurements



- 11 functions/33 ranges
- 2000-count LCD display with 1" digit height
- Resolution: 100µV max.
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 700V
- **DC/AC current ranges:** 2mA – 10A
- **Resistance ranges:** 200Ω – 200MΩ
- **Capacitance ranges:** 2nF – 20µF
- **Frequency ranges:** 2kHZ – 20kHz
- **Temperature ranges:** -20˚C - +1000˚C
- Diode, continuity, and transistor h_{FE} test

Includes: Test leads and K-type thermocouple

Part No.	Product No.	1	10	25
220775CF	MY64	$45.95	$43.65	$41.45

3260-Count Multimeter with Analog Bargraph & Frequency Measurements



- 10-functions/29 ranges
- 3260-count 0.67" digit height LCD display with analog bar graph
- Resolution: 100µV maximum
- **DC voltage ranges:** 326mV – 1000V
- **AC voltage ranges:** 3.26V – 750V
- **DC/AC current ranges:** 326µA – 10A
- **Resistance ranges:** 326Ω – 32.6MΩ
- **Capacitance ranges:** 326nF – 32.6µF
- **Frequency ranges:** 32.6kHz – 150kHz
- Diode, continuity, and transistor hFE test
- Auto range and data hold push button

Part No.	Product No.	1	10	25
220767CF	MY68	$54.95	$52.25	$49.65

4000-Count Auto-Range Pocket Multimeter



- 3¾-digit LCD display (0.43" digit height)
- Resolution: 100µV maximum
- **DC/AC voltage ranges:** 4V – 500V
- **DC/AC current ranges:** 40mA – 400mA
- **Resistance ranges:** 400Ω – 40MΩ
- Diode and continuity test • Data hold button
- Size: 2.7"W x 0.8"D x 4.8"H • Built-in test leads

Part No.	Product No.	1	10	25
220804CF	M320	$26.95	$25.65	$24.35

Our Lowest Priced 20,000-Count Multimeter



- Extra-large digits (0.8" digit height)
- Resolution: 10µV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 2V - 700V
- **DC/AC current ranges:** 2mA – 10A
- **Resistance ranges:** 200Ω – 200MΩ
- **Capacitance ranges:** 200pF – 20µF
- Measures transistor h_{FE} & continuity
- Hold button • Auto power off
- Size: 3.9"W x 1.9"D x 8.0"H
- Weight: 1.5 lbs. • One-year warranty

Includes: Protective boot, 9V battery, probes and manual

Part No.	Product No.	1	10	25
136590CF	MY65	$69.95	$62.95	$56.95

2000-Count Pocket Multimeter



- **DC voltage ranges:** 200mV, 2V, 20V, 200V, 1000V
- **AC voltage ranges:** 200V, 750V
- **DC current ranges:** 200µA, 2mA, 20mA, 200mA, 10A
- **Resistance ranges:** 200Ω, 2kΩ, 20kΩ, 200kΩ, 2MΩ
- Diode and transistor tests
- 0.5" digit height
- Removable test leads
- Size: 2.6"W x 1.0"D x 4.8"H
- Weight: 0.5 lbs.
- One-year warranty

Includes: 9V battery

Part No.	Description	1	10	50
119212CF	Pocket multimeter	$19.95	$17.95	$16.19

2000-Count Multimeter with Temperature & Frequency Measurement



- 3½-digit LCD (1.0" digit height)
- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 2V – 700V
- **DC current ranges:** 2mA – 10A
- **AC current ranges:** 200mA – 10A
- **Resistance ranges:** 200Ω – 20MΩ
- **Capacitance ranges:** 2nF – 20µF
- **Frequency**: 20kHz
- **Temperature range:** -20˚C – 1000˚C
- Diode, transistor and continuity testing
- Data hold switch
- Size: 4.0"W x 2.0"D x 8.0"H • Weight: 1.6 lbs.

Incudes: Manual, probes, and 9V battery

Part No.	Mfr. Cross Ref. No.	1	10
177480CF	AEEC2890	$49.95	$44.95

Autoranging 3200-Count Analog/Digital Multimeter



- 3¾-digit (0.53" digit height) LCD with analog bar graph
- Resolution: 100µV maximum
- **DC voltage ranges:** 320mV – 1000V
- **AC voltage ranges:** 320mV – 750V
- **DC/AC current ranges:** 320µA to 10A
- **Resistance ranges:** 320Ω – 32.59MΩ
- Data hold
- Diode/continuity test
- Auto range
- Auto power off
- Size: 3.9"W x 1.5"D x 7.7"H • Weight: 1.5 lbs.

EZ DIGITAL

Part No.	Mfr. Cross Ref. No.	1	10
101936CF	DM333	$67.95	$59.95

2000-Count Multimeters

BelMERIT



- Function and range annunciators
- Resolution: 100µV max.
- Data hold
- **DC voltage ranges:** 200mV – 1000V
- **DC/AC current ranges:** 200µA – 10A
- **Frequency ranges:** 2kHz – 20MHz
- **AC voltage ranges:** 200mV – 750V
- **Resistance ranges:** 200Ω – 20MΩ
- Diode and continuity test h_{FE}
- Auto power off
- Z_{IN} = 10MΩ

SALE

141250CF



141250CF:
- Basic model with transistor test h_{FE}
- Capacitance: 2nF – 20µF
- Size: 4.0"W x 2.3"D x 8.0"H

147096CF:
- Capacitance: 2nF – 2000µF
- Inductance: 20mH – 20H
- Size: 4.0"W x 1.5"D x 8.0"H

147096CF

Includes: Manual, test probes and 9V battery

Part No.	Description	Wt. (lbs.)	1	10
141250CF	Meter w/ h_{FE}	1.5	~~$74.95~~ $58.55	$53.19
147096CF	Meter w/ inductance	2.7	99.95	89.95

2000-Count Multimeters w/ Adjustable Viewing Angle



Tiltable Screen

- Adjustable 1" LCD display for better viewing
- Auto power-off
- Improper test lead position alarm alerts user if position does not match function
- Accuracy: ±0.5% for DCV
- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 750V
- **DC/AC current ranges:** (P/N 197958CF) 20µA – 10A; (P/N 197966CF) 20mA – 20A
- **Resistance ranges:** 200Ω – 200MΩ
- Tests diode, continuity and transistor h_{FE}
- Size: 3.5"W x 1.3"D x 7.3"H
- Weight: 0.6 lbs.



197958CF



197966CF

197966CF:
- **Capacitance ranges:** 2nF – 20µF
- **Temperature:** -40˚ to 1000˚C

EXTECH

Includes: Test leads, protective holder, 9V battery and temperature probe (P/N 197966CF only)

Part No.	Product No.	1	10	25
197958CF	MV110	$38.95	$34.95	$32.95
197966CF	MV120	~~$69.95~~ 59.95	53.99	48.59

11-Function 4000-Count Multimeter with Autorange



- 4000-count large LCD display
- Auto ranging with manual override
- Resolution: 0.1mV max.
- **AC/DC voltage ranges:** 400mV – 600V
- **AC/DC current ranges:** 400µA – 10A
- **Resistance ranges:** 400Ω – 40MΩ
- **Capacitance ranges:** 4nF - 200µF
- **Frequency ranges:** 10Hz – 10MHz
- **Temperature ranges:** 0˚F - 1400˚F (0˚C - 760˚C)
- Diode test, duty cycle and continuity
- Relative zero, data hold, range hold, auto off
- Size: 2.4"W x 1.6"D x 4.8"H
- Weight: 0.6 lbs.

EXTECH

Includes: Protective holster with stand, two 1.5V AAA batteries and test leads

Part No.	Product No.	1	10
211650CF	MN26	$39.95	$37.95

50,000-Count Digital Multimeter with Analog Bargraph



- True RMS reading
- Auto and manual ranging
- Large LCD display provides easy readability; all test parameters in clear view (0.55" digit height)
- AC/DC voltage protection
- Continuity and diode testing
- Basic DC accuracy: 0.025%
- **DC voltage ranges:** 500mV – 1000V (10µV – 100mV resolution)
- **AC voltage ranges:** 500mV – 750V (10µV – 100mV resolution)
- **AC/DC current ranges**: 500µA – 10A (10µA – 1mA resolution)
- **Resistance**: 500Ω – 50MΩ (10mΩ – 1kΩ res.)
- **Capacitance**: 50nF – 50mF (10pF – 10µF res.)
- **Frequency**: 0.6Hz – 500kHz
- Size: 3.2"W x 1.6"D x 7.5"H
- Weight: 1.5 lbs.

BK PRECISION

Includes: Probes and manual

Part No.	Product No.	1	10	25
185201CF	BK5380	~~$179.95~~ $149.99	$127.49	$95.65

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For test leads to accompany your multimeters, see pages 159 – 160.



Detailed specifications for Test Equipment
www.Jameco.com

Pocket Analog Multimeter



- **DC/AC voltage ranges:** 0 – 500V
- **DC current ranges:** 0 – 250mA
- **Resistance ranges:** 0 – 1kΩ
- Size: 2.3"W x 1.2"D x 3.6"H

Includes: Insulated probes

Requires: 1.5V battery (recommend P/N 198707CF, pg 212)

Part No.	Description	1	10	50
206287CF	Pocket multimeter ..... ~~$9.95~~	$8.95	$8.09	$7.25

Digital LCR Meter



- 3½-digit display (0.5" digit height)
- **Inductance ranges:** 200µH to 200H
- **Capacitance ranges:** 200pƒ to 2000µƒ
- **Resistance ranges:** 2mΩ to 20MΩ
- Dissipation factor measurement
- Size: 3.3"W x 1.4"D x 6.7"H
- Weight: 1.1 lbs.
- One-year warranty

Includes: Test leads and 9V battery

Part No.	Description	1	10	25
127538CF	LCR meter	$139.95	$125.95	$118.95

EXTECH Passive Component LCR Meter



198678CF

- Measures L, C, and R with secondary parameter Q, D or R; both are displayed
- Accuracy of 0.7% for L & C, 0.5% for R
- **Inductance ranges:** 2000.0uH to 2000.0H
- **Capacitance ranges:** 2000.0pF to 2000.0uF
- **Resistance ranges:** 20.000Ω to 20.000MΩ
- Test frequencies of 120Hz and 1kHz
- Dissipation Factor (D) reading: 0 to 0.9999
- Quality (Q) reading: 0 to 9999
- Selectable parallel or series equivalent circuit
- Set HI/LO limits, absolute or percentage
- 4½-digit backlit LCD display
- Bidirectional RS-232 port with optional software
- Max./Min./Avg. recording with auto power off
- Size: 3.6"W x 2.1"D x 7.6"H
- Weight: 0.8 lbs.

Includes: Test leads, alligator clips, 9V battery and holster

Part No.	Description	1	10
198678CF	LCR Meter	$178.95	$160.95
189237CF	9VDC @ 300mA adapter	4.25	3.59

High Voltage AC/DC Test Probe



- Maximum voltages: DC: 40kV, AC: 40kV peak, 28kVrms
- Accuracy: DC: ±1.5%, AC: ±5%
- 10MΩ meter input impedance required
- Input/output impedance: 1,000MΩ/1.1MΩ
- Cable length: 39"
- Probe length: 14" • Weight: 0.8 lbs.

Part No.	Description	1	10
132290CF	High volt. test probe ..... ~~$89.95~~	$79.95	$72.95

2000-Count Benchtop Multimeter



- 8 functions, 33 ranges
- LCD display with 0.5" digit height
- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV – 1000V (0.5% accuracy)
- **AC voltage ranges:** 200mV – 750V (1% accuracy)
- **DC/AC current ranges:** 200µA – 20A
- **Resistance ranges:** 200Ω – 20MΩ
- **Capacitance ranges:** 2nF – 20µF (2% accuracy)
- Diode and continuity test
- Input voltage: 110/220VAC @ 50-60Hz
- Size: 9.6"W x 11.0"D x 3.7"H • Weight: 4.4 lbs.

Includes: Power cord, operations manual & test leads

Part No.	Product No.	1	5
229227CF	GDM-8034	$249.95	$237.45

4000-Count True RMS Benchtop Multimeter with RS-232



- 9 functions, 32 ranges
- 3¾-digit backlit LCD display with bargraph
- Auto/manual ranging
- True RMS AC volts and amps
- Resolution: 100µV maximum
- **DC voltage ranges:** 400mV – 1000V (0.3% accuracy)
- **AC voltage ranges:** 4V – 750V
- **DC/AC current ranges:** 4mA – 10A
- **Resistance ranges:** 400Ω – 40MΩ
- **Capacitance ranges:** 4nF – 40µF
- **Frequency ranges:** 100Hz – 600kHz
- Diode and continuity test • Delay hold mode
- Min., max., and relative hold function
- Input voltage: 9V battery or 90-132VAC/198-264VAC @ 50-60Hz
- Size: 9.0"W x 9.4"D x 3.3"H • Weight: 3.3 lbs.
- Two-year warranty

Includes: Manual, test leads, power adapter, 9V battery, RS-232 cable and software (98/ME/2000/XP compatible)

Part No.	Product No.	1	5
230586CF	B940	$148.95	$141.55

20,000-Count True RMS Benchtop Multimeter



- 4½-digit green LCD
- DC accuracy: 0.05%
- Full overload protection
- Resolution: 10µV max.
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 750V
- **DC/AC current ranges:** 2mA – 10A
- **Resistance ranges:** 200Ω – 20MΩ
- **Frequency** measurement up to 200kHz
- Continuity check with beeper
- Data hold, diode check, transistor h_{FE} measurement available
- Size: 9.9"L x 9.8"W x 3.6"H • Weight: 6.1 lbs.
- One-year manufacturer's warranty

Part No.	Product No.	1	10	25
132564CF	DM441	$219.95	$209.95	$199.95

20,000-Count Benchtop Multimeter w/ RS-232, Analog Bar & 4 Displays



- Automatic polarity indicator
- 1-2 readings per second
- DC accuracy: 0.1% +5 digits
- 10 reading storage and compare
- Resolution: 10µV max.
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 750V
- **DC/AC current ranges:** 2mA – 20A
- **Resistance ranges:** 200Ω – 20MΩ
- **Frequency ranges:** 20kHz – 20MHz
- Min., max., average, relative functions
- Logic, diode, transistor h_{FE} and continuity test
- Size: 11.2"L x 8.2"W x 3.2"H • Weight: 7.5 lbs.

Includes: Manual, power cable, probes and software

Part No.	Product No.	1	10
166852CF	MXD4660A	$249.95	$224.95

20,000-Count True RMS Benchtop Multimeter



- 6 functions, 22 ranges
- 4½-digit red LED display with 0.5" digit height
- Resolution: 10µV maximum
- **DC voltage ranges:** 200mV – 1200V (0.03% accuracy)
- **AC voltage ranges:** 200mV – 1000V (0.03% accuracy)
- **DC/AC current ranges:** 200µA – 20A
- **Resistance ranges:** 200Ω – 20MΩ
- Diode test • AC or AC+DC coupling
- Interlocking push buttons for easy selection
- 3600 adjustable tilting bail for maximum readability of display
- Input power: 117VAC or 234VAC @ 50-60Hz
- Size: 13.0"W x 9.0"D x 3.1"H • Weight: 4.7 lbs.

Part No.	Product No.	1	5
222578CF	BDM40	$468.95	$445.55



Detailed specifications for Test Equipment, DMMs and other Meters on the Jameco website.

www.Jameco.com

50,000-Count Dual-Display True RMS Benchtop Multimeter

- 9 functions, 38 ranges
- Dual display indicates ACV and Hz, DCV (ACV) and dBm, or DCV and ACV ripple
- Auto range/manual operating modes
- AC or AC+DC true RMS • RS-232 interface
- Resolution: 10uV maximum
- **DC voltage ranges:** 500mV – 1200V (0.03% accuracy)
- **AC voltage (True RMS) ranges:** 500mV – 1000V
- **DC/AC current ranges:** 500µA – 20A
- **Resistance ranges:** 500Ω – 20MΩ
- **Capacitance ranges:** 5nF – 50µF
- **Frequency ranges:** 10Hz – 200kHz
- Diode and continuity test
- Min., max., dBm, relative and hold functions
- Input voltage: 120/230V @ 50-60Hz
- Size: 9.9"W x 11.5"D x 3.6"H • Weight: 5.7 lbs. • Two-year warranty

Downloadable software @ Jameco.com



INSTEK

Includes: Power cord, operations manual and test leads

Part No.	Product No.	Description	1	5
229235CF	GDM-8245	50,000-count benchtop multimeter	$499.95	474.95

Fluke 45 100,000-Count Dual-Display True RMS Benchtop Multimeter

The Fluke 45 is a feature-rich 5-digit, 100,000 count meter that truly fits all applications and virtually any measurement needed on the work-bench or in the field. Two multifunction displays and 16 different measurement capabilities allow wide ranging versatility at an affordable price. The Fluke 45 delivers high performance and flexibility for manufacturing test, depot and field service, as well as R&D applications.



- Multifunction vacuum fluorescent dual display allows the user to measure two different parameters of the same signal from one test connection, and view both measurements at the same time.
- True RMS voltage and current, including AC + DC • Frequency measurement to 1 MHz
- dB measurements: 21 selectable reference impedances from 2 to 8000, and audio power from 2W to 16W
- Compare (Hi/Lo/Pass) function for quick in-tolerance tests
- 0.05% DC current accuracy for 4-20mA current loop service
- 8 functions, 31 ranges • 2.5 reading per second • Resolution: 1µV maximum
- **DC voltage ranges:** 100mV – 1000V • **AC voltage ranges** (True RMS; AC-coupled): 100mV – 750V
- **DC/AC current ranges:** 10mA – 10A • **Resistance ranges:** 100Ω – 100MΩ
- **Frequency ranges:** 1kHz – 1MHz • Diode and continuity test • Size: 8.5"W x 11.3"D x 3.7"H

FLUKE

Part No.	Product No.	Description	Weight (lbs.)	1	5
222367CF	FLK-45	RS-232 interface	5.2	$748.95	$711.49
229833CF	FLK-45-15	GPIB interface, battery pack included	7.0	1,048.95	1,048.95
222359CF	FLK-45-01K	Battery pack only	1.8	184.95	175.69

200-Watt Programmable Switching Power Supplies with RS-232 Interface

- Voltage regulation: ≤10mV load; ≤0.05% line
- Current regulation: ≤5mA load; ≤0.05% line
- Output ON/OFF control
- Ripple: ≤20mV_{rms}; ≤10mA_{rms}
- Program voltage accuracy: 0.05%
- 5.7" (320 x 240 pixel) LCD display
- 3-step fan speed control
- Over-voltage/over-current/over-power/ over-temperature protection
- Key lock to avoid unauthorized operation
- Normal, +%, & -% output operation key
- Standard RS-232C 9-pin female interface
- Input voltage: 115/230VAC @ 50-60Hz
- Size: 8.9"W x 12.0"D x 3.9"H • Weight: 8.8 lbs. • Two-year warranty



INSTEK

Includes: Power cord, operations manual and test leads

Part No.	Product No.	Description	1	5
229323CF	PSP-2010	0-20V @ 0-10A	$349.95	$332.45
229294CF	PSP-603	0-60V @ 0-3.5A	349.95	332.45

See the yellow and green highlighted items.

Jameco Special Values!

Details on page 3.

110-Watt Programmable Linear Power Supply with RS-232/485 Interface

- Output voltage and current: 0-36V @ 0-3A
- Resolution: 1mV/1
- Volts, amps, and power are disp a backlit LCD display
- Values may be entered from keyboard, rotary dial, or RS-232 interface
- 10 memory settings
- Voltage/current regulation: ±0.03% load; ±0.02% line
- Ripple: ≤2mV RMS
- Program settling time: 10ms increasing output voltage; 30ms decreasing output voltage
- Over voltage and current protection
- Input voltage: 110/220VAC @ 50-60Hz
- Size: 8.3"W x 9.8"D x 3.5"H
- Weight: 13.2 lbs.
- Two-year warranty



Protek

Includes: Manual, power cord, rack-mounting kit, RS-232 cable and software (98/2000/ME/XP compatible)

Part No.	Product No.	1	5
230578CF	P6000	$298.95	$283.95

500-VA AEC Power Source with True RMS Meter

- Wide range variable output voltage/ frequency
- 4 save/ recall voltage and frequency memories
- Stable and low distortion output waveforms
- Over-temperature, over-current, short circuit protection
- Output capacity: 500VA
- Output: 0.0-300.0VAC in 0.1V steps; 100 & 220VAC selectable
- Maximum current: 4.2A_{rms} for 0-150V; 2.1A_{rms} for 0-300V
- Frequency: 45.0 – 500.0Hz in 0.1Hz steps to 100.0Hz & 1Hz steps to 500Hz
- Load and Line regulation: 0.1V or 0.5%
- Frequency response: 0.1V recovering time of ≤2 seconds
- Frequency stability: ≤0.01%
- Waveform: sinewave with ≤0.5% THD
- Frequency display ranges: 0.0 – 999.9Hz
- True RMS voltage display ranges: 0.0 – 380.0V
- True RMS current display ranges: 0.00 – 2.00A or 1.80 – 35.00A
- Watt display ranges: 0.0 – 360.0W or 320.0 – 3500.0W
- Power factor display ranges: 0.000 – 1.000
- Input voltage: 115/230VAC @ 50-60Hz
- Size: 16.9"W x 19.7"D x 5.4"H • Weight: 55.1 lbs.
- Two-year warranty



INSTEK

Includes: Power cord and operations manual

Part No.	Product No.	1	5
229382CF	APS-9501	$1,599.95	$1,519.95

Detailed specifications for Test Equipment
www.Jameco.com

EZ DIGITAL

90-Watt Digital DC Power Supply

30VDC @ 3A



- Constant current and constant voltage operation
- Can be used for positive or negative source
- Overload protection circuit
- Input voltage: 100/240VAC @ 50-60Hz
- Size: 5.2"W x 5.6"H x 10.0"D
- Weight: 10.9 lbs.
- One-year warranty

Part No.	Product No.	1	10
121152CF	GP4303D ~~$209.95~~	$189.95	$179.95

100-Watt Triple Output Digital and Analog DC Power Supplies

30VDC @ 3A

EXTECH INSTRUMENTS



197991CF



197982CF

- Triple output with fixed 5VDC @ 0.5A, 12VDC @ 0.5A
- Adjustable 0 – 30V voltage and 0 – 3A current outputs
- Displays of both voltage and current
- Constant voltage or current
- Current limiting indicator
- Overload and short circuit protection
- Binding post terminals for variable supply
- Input voltage: 110/220VAC @ 50-60Hz (switchable)
- Size: 9.5"L x 6.0"W x 5.6"H • Weight: 10.0 lbs.

Part No.	Description	1	10
197991CF	Digital DC	$198.95	$178.95
197982CF	Analog DC	168.95	151.95

150-Watt Digital Power Supply

30VDC @ 5A



- Adjustable voltage/ current outputs
- Constant voltage and current operation
- LCD displays for both current and voltage
- Coarse and fine adjustment knobs for current and voltage
- Color-coded terminals for positive, negative and ground connections
- 2A @ 250V fuse
- Dual digital display
- Input voltage: 110/220VAC @ 50-60Hz (switchable)
- One-year warranty
- Size: 5.4"W x 10.7"D x 6.0"H • Weight: 13.8 lbs.

Part No.	Description	1	10	25
153242CF	30VDC @ 5A ... ~~$249.95~~	$234.95	$211.49	$190.35

150-Watt Linear Power Supply

15VDC @ 10A



- Output voltage: 2VDC to 15VDC
- Output current: 15A max.
- Constant voltage operation
- Color-coded terminals for positive and negative terminals, voltage adjustment knob
- Overvoltage, overcurrent, short-circuit protection
- Cigarette lighter output current plug
- LED indicator for power and warning
- Current and voltage panel meter
- Built-in fan
- Input voltage: 110VAC @ 60Hz
- Size: 5.7"L x 6.2"W x 4.0"H • Weight: 12.0 lbs.

Part No.	Mfr. Cross Ref. No.	1	10	25
175265CF	DPS150A	$149.95	$134.95	$129.95

150-Watt Power Supply

50VDC @ 3A



- Adjustable voltage/current outputs
- Constant voltage & current operation
- Color-coded terminals for ground, positive and negative terminals
- 3A @ 115V fuse
- Color-coded adjustment knobs for voltage, current and fine adjustment
- Input voltage: 110VAC @ 60Hz
- Color: dark gray
- Size: 9.0"L x 4.75"W x 7.5"H
- Weight: 12.3 lbs. • One-year warranty

Part No.	Description	1	10	25
163723CF	50VDC @ 3A ...	$159.95	$144.95	$137.95

190-Watt Triple Output Power Supply

Digital Display



EZ DIGITAL

- Output voltage: 0 to +30VDC @ 3A 0 to -30VDC @ 3A +5VDC @ 2A
- Ripple voltage: less than 3mVp-p
- Volt and current meter: LED display (±1% + 1 digit)
- Overload protection circuit
- Input voltage: 100VAC/230VAC @ 50-60Hz (switchable)
- Weight: 23 lbs. • One-year warranty

Includes: Manual and spare fuse

Part No.	Product No.	1	5
157518CF	GP4303TP	$549.95	$529.95

225-Watt Analog Power Supply

15VDC @ 15A



- Output voltage: 9VDC to 15VDC
- Output current: 25A max. (22A continuous @ 13.8VDC)
- Constant voltage operation
- Over-voltage protection @ 16.5V
- Short-circuit protection @ 27.5A
- Color-coded adjustment knob and output terminals for voltage
- Cigarette lighter plug for current output
- Power and fan LED indicator • Built-in fan
- Voltage and current panel meter
- Input voltage: 110VAC/220VAC @ 47-63Hz (switchable)
- Size: 5.6"L x 6.2"W x 4.0"H • Weight: 3.8 lbs.

Part No.	Mfr. Cross Ref. No.	1	10	25
175257CF	SPS250A	$169.95	$152.95	$144.95

250-Watt Analog Power Supply

50VDC @ 5A



- Adjustable voltage/current outputs
- Constant voltage and current operation
- Color-coded adjustment knobs for voltage, current, and fine tuning
- Color-coded terminals for ground, positive, negative
- 5A @ 250V fuse • Isolated ground
- Input voltage: 110VAC @ 50-60Hz
- Color: dark gray
- Size: 4.9"L x 7.7"W x 6.7"H • Weight: 13.8 lbs.

Part No.	Mfr. Cross Ref. No.	1	10	25
175249CF	DPS5050	$189.95	$179.95	$171.49

MASTECH

100W to 600W Benchtop Power Supplies

- Voltage and current adjustable
- Current restricted and short-circuit protection
- Input voltage: 110/220 ±10% VAC

Analog display power supplies
- Accuracy: 2.5%

Digital display power supplies
- Voltage accuracy: 1% + 2 digits
- Current accuracy: 1.5% + 2 digits



207618CF



207706CF



211705CF

Single Output

Part No.	Product No.	Displays	Power (W)	Voltage (VDC)/Current (A)	Size (W"xH"xD")	Wt. (lbs.)	1	10
207618CF	HY3005C	2-Analog	150	30/5	5.4 x 6.2 x 11.5	14	$159.95	$144.95
207626CF	HY3010C	2-Analog	300	30/10	14.4 x 6.5 x 10.4	28	299.95	269.95
207693CF	HY5002	2-Digital	100	50/2	5.4 x 6.2 x 11.5	13	199.95	179.95
207706CF	HY5003	2-Digital	150	50/3	5.4 x 6.2 x 11.5	14	249.95	224.95
207600CF	HY5005	2-Digital	250	50/5	14.4 x 6.5 x 11.5	28	299.95	269.95
207634CF	HY3010	2-Digital	300	30/10	14.4 x 6.5 x 10.4	32	399.95	359.95
207685CF	HY3020	2-Digital	600	30/20	14.4 x 6.5 x 10.4	46	499.95	449.95

Multiple Output

Part No.	Product No.	Displays	Power (W)	Voltage (VDC)/Current (A)	Size (W"xH"xD")	Wt. (lbs.)	1	10
211721CF	HY3002-2	2-Digital	120	0-30/2; 0-30/2	18.1 x 10.3 x 14.1	23	$249.95	$224.95
211705CF	HY3002D-2	4-Digital	120	0-30/2; 0-30/2	18.1 x 10.2 x 14.2	23	269.95	242.95
211692CF	HY3003D-2	4-Digital	180	0-30/3; 0-30/3	18.1 x 11.4 x 14.2	28	289.95	259.95
211730CF	HY3003-2	2-Digital	180	0-30/3; 0-30/3	18.1 x 11.4 x 14.1	28	299.95	269.95
211713CF	HY3003-3	2-Digital	195	0-30/3; 0-30/3; 5/3	18.1 x 11.4 x 14.1	29	319.95	287.95
211684CF	HY3003D-3	4-Digital	195	0-30/3; 0-30/3; 5/3	18.1 x 11.4 x 14.1	29	329.95	296.95

Mini DC/AC 2000-Count Clamp Meter/Multimeter



- Bright 1/2" LCD display with DATA HOLD
- 0.5" digit height
- Compatible w/ P/N 162325CF, below
- Size: 7.1"L x 1.9"W x 1.4"H
- Weight: 0.9 lbs.
- One-year warranty

ACA*	20A, 200A	±1.2% + 5d
DCA	200A	±1.2% + 5d
ACV*	500V	±1.0% + 2d
DCV	200V	±0.8% + 1d
Resistance	200Ω	±1.2% + 1d
*Frequency Response	40-400Hz	
Zero Adjust	External knob for DCA	

Requires: 9V battery not included (P/N 151095CF, pg 212)

Includes: Test leads, manual and case

Part No.	Description	1	10
115756CF	Mini DC/AC clamp meter....	$119.95	$107.95

Wavetek Meterman 5-Function 4000-Count Clamp Meter/Multimeter



- 4000-count display with bar graph
- Resolution: 0.1mV maximum
- **DC/AC voltage range:** 600V
- **AC current range:** 400A
- **Resistance range:** 400Ω
- Continuity test • Auto off
- 1.0" max conductor size • Autoranging
- Compatible with P/N 162325CF AC line separator, below
- Data hold • One-year warranty
- Size: 11.4"L x 6.6"W x 2.1"D

Part No.	Model No.	1	10
192583CF	AC40A	$74.95	$72.39

MASTECH 15A AC Line Separator for AC Current Clamp Meters

3-Prong US-Type Plug



- Maximum overload: 250VAC @ 15A
- X1 and X10 clamp areas
- Convenient 0.1"Dia. meter tip test points for neutral/earth/line
- Socket compatible with US & European connectors
- Size: 6.0"L x 1.9"W x 1.4"T • One-year warranty

Part No.	Description	1	10	25
162325CF	3-prong separator	$10.95	$9.95	$8.95

50mV/50A Current Shunt



- Current ranges: 0 to 50A
- Accuracy: 0.8% ±0.2mV
- Output ratio: 1mV/1A
- Max. current: 100A • Size: 5.3"L x 1.2"W x 1.4"H

Part No.	Description	1	10	25
162309CF	Current shunt	$24.95	$22.49	$19.95

30-Day Money-Back Guarantee

If you're not completely satisfied with your purchase, we'll take it back!

Details on page 226.

17MHz Logic Probe



- Max input freq.: 17MHz
- Minimum pulse width: 30ns
- Input impedance: 1MΩ
- Pulse flash time: 500ms
- Audible tones for high & low
- Power supply protection: ±20V
- TTL threshold: Lo = 0.8V ±0.2V, Hi = 2.3V ±0.2V
- CMOS threshold: Lo = 30% VCC, Hi = 70% VCC
- Size: 7.7"L x 1.0"W x 0.6"H

Part No.	Description	1	10	25
149930CF	Logic probe ~~$32.95~~	$29.95	$26.99	$24.29

Logic Pulser



- Compatible with TTL, DTL and CMOS ICs
- 1MΩ sync input impedance
- "One shot" or continuous 5Hz train pulse
- Pulse repetition rate: 0.5pps/400pps
- Pulse width output at 100mA load: 10µs
- Pulse mode output current: 10mA
- Square wave current output: 5mA
- Size: 7.8"L x 1.0"W x 0.6"H

Part No.	Description	1	10	25
24601CF	Logic pulser	$19.95	$17.95	$15.95

See page 148 for Function Generators and Frequency Counters.



PC Cable-Check™ Tester



Tests standard computer cables for open, shorted and cross-connected wires. PC Cable-Check™ also tests any combination of D-sub 9-pin, D-sub 15-pin, D-sub 25-pin, Centronics 36-pin printer, plus RJ11, and RJ45 telephone plugs. A separate section to check USB-A to USB-B cables, as well a separate section to check female BNC to female BNC cables.

Includes: Battery and manual

Part No.	Description	1	10
123916CF	PC cable-check™	$159.95	$149.95

See page 194 for Computer Cables



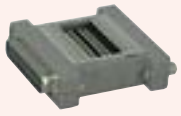
RS-232 Mini-Tester with Status LEDs



Tests any RS-232 (DB25) interface and helps to identify equipment that has failed. Seven bicolor LEDs indicate the status of TD, RD, RTS, CTS, DSR, CD and DTR. LEDs indicate positive (red) and negative (green). No extra power is required. Connectors: male to female DB25.

Part No.	Description	1	10	100
26729CF	Mini-tester	$10.95	$9.95	$8.95

Miniature RS-232 Breakout Box for Quick Design Changes



Design new interfaces or modify old ones quickly and easily. Completely self-contained. Connectors: male to female DB25.

Includes: 25 each 22 AWG wire jumpers and machine tool sockets

Part No.	Description	1	10	100
11181CF	Breakout box	$8.95	$7.95	$6.95

RS-232 Loopback Tester



The tester acts as a data verifier by sending data back to the transmission device. Used for diagnostic testing of RS-232 circuits. 4 LEDs monitor lines 2 to 3, 4 to 5, 6 to 20, and 15 to 17. Connectors: male to female DB25.

Part No.	Description	1	10	100
22728CF	Loopback tester	$6.95	$5.95	$4.45

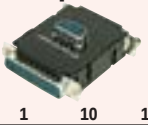
RS-232 Line Status Tester



Identifies simple interface problems which you can repair yourself. Targets the status of lines 2, 3, 4, 5, 6, 8, 11, 19, and 20. Connectors: male to female DB25.

Part No.	Description	1	10	100
14285CF	Check line tester	$8.95	$8.09	$7.25

RS-232 Signal Adapter/Splitter



- Metal connectors: DB25 female and male, and DB9 male
- Gold-plated contacts

Part No.	Description	1	10	100
105195CF	Tri-port serial adapter	$7.95	$6.95	$5.95

Flexible Multilink RS-232 Tester & Breakout Box



Visually indicates the status of lines 2, 3, 4, 5, 6, 8, 20, and 22 on the DTE and DCE sides. Provides signal status at a glance. Complete cable "breakout" & reconfiguration. Connectors: DB25 male & DB25 female.

- Cable length: 4" • Size: 3.5"L x 3.3"W x 1.0"H

Includes: handy carrying case, 10 jumper wires and a device wiring chart

Part No.	Description	1	10	25
25945CF	Tester/breakout box	$22.95	$19.95	$17.95

Mini-Clip to Banana Test Cables

- Plunger-type action
- Available in black or red
- Positive connection that won't disconnect from components
- Banana plug connection on opposite end
- Length: 3.5' • 20 AWG insulated wire



21864CF

Part No.	Description	1	10	100
21856CF	Black test cable	$3.95	$3.55	$2.99
21864CF	Red test cable	3.95	3.49	2.99

Pomona® Stackable Banana Test Lead Cables



159898CF 159901CF 159919CF

- 5000V @ 15A • 55˚C max.

159898CF: Two 36" leads, mini clip w/ banana
- 45VAC @ 5A max.; beryllium copper contact and glass filled insulation

159901CF: Two 24" leads **159919CF**: Two 36" leads

Part No.	Prod. No.	Description	1	10	25
159898CF	3782-36	Mini w/ banana	$7.95	$7.19	$6.59
159901CF	B-24-02	Patch cord	9.95	8.95	7.95
159919CF	B-36-02	Patch cord	9.95	8.95	7.95

Banana-to-Banana Test Leads

- Stackable
- Color coded; 2 each red, yellow, blue, black, white • 9.8" long
- 10 per package
- 18 AWG wire



Part No.	Description	1	10	25
77841CF	Test leads	$22.95	$20.69	$18.59

Double-Banana Plug to Alligator Clips Test Cable



- Red & black rubber boot
- 4" lead wire • Length: 3'

Part No.	Description	1	10	50	100
107422CF	Test cable	$3.95	$3.49	$2.95	$2.49

Alligator Clip Leads



- 24 AWG wire
- Color-coded, 15" long
- Insulated alligator clip on each end
- 10 per pkg. in assorted colors

Part No.	Description	1	10	100	1000
10444CF	Alligator leads	$3.99	$3.59	$3.25	$2.95

BNC to Alligator Clip Test Cable

Permits BNC assembly to be used as a test cable.



- Upper connection: two alligator clips – red 5.5" 22AWG wire; black 9" 22AWG wire
- Lower connection: 23" RG/58U cable with BNC connector

Part No.	Description	1	10	100	1000
11383CF	BNC cable	$3.49	$2.49	$2.25	$2.05

Pomona® Test Lead Holders

155985CF:
- Max cable dia.: 0.450"
- 11"L • Color: blue

155977CF:
- Max cable dia.: 0.320"
- 11"L • Color: black

155969CF:
- Max cable dia.: 0.210"
- 11"L • Color: orange



155985CF



155977CF

Part No.	Prod. No.	No. of Slots	1	10	25
155985CF	2708B	9	$9.95	$9.45	$8.95
155977CF	4408	10	9.95	9.45	8.95
155969CF	1508	14	9.95	9.45	8.95

Insulated Alligator Clips



- Color-coded
- Insulated barrel
- Jaw opening .375"-0.5"
- Accepts standard banana connector
- Solder strap and pre-drilled hole for 6-32 self threading screw • Size: 2.3"L x 0.5"W

Includes: One red and one black clip

Part No.	Description	1	10	100	1000
70990CF	Alligator clips	$.39	$.36	$.33	$.30

1 9/16" Banana Plugs



- Set-screw connection
- Standard banana spring plug
- Additional 6-32 threaded hole for connection reliability
- .1875" lead opening
- Insulating sleeve is threaded to banana plug body
- Size: 1.6"L x 0.4"Dia.

Includes: One red and one black plug

Part No.	Description	1	10	100	1000
72194CF	Banana plugs	$1.59	$1.49	$1.25	$1.09

2 1/4" Banana Plugs



- Nine rib spring plug
- Will accept up to 0.1" dia. wire
- Set-screw connection
- Each plug equipped with hole for interconnection
- Size: 2.3"L x 0.3"W
- Insulating sleeve fits snugly over copper post

Includes: One red and one black connector

Part No.	Description	1	10	100
137525CF	Banana plugs	$2.95	$2.12	$1.84

Pomona® Solderless Banana Plug Sets



159863CF 159855CF 159927CF

- Nickel-plated • Set screws secure leads
- ABS insulation • 5000VDC @ 15A • 50˚C max.
- Color: 1 red and 1 black per set

159863CF: Solderless with safety collar & set screw
159855CF: Solderless with set screw
159927CF: Solderless double banana plug w/ wire guide

Part No.	Product No.	1	10	25
159863CF	1825-02 set	$2.45	$2.19	$1.95
159855CF	1325-02 set	3.29	2.99	2.69
159927CF	MDP-02 set	4.49	4.05	3.65

Double Banana Plugs



125217CF

- Dual gold-plated female banana plugs
- Stackable

Part No.	Description	1	10	100
125209CF	Blk banana connector	$2.65	$2.39	$2.15
125217CF	Red banana connector	2.39	2.15	1.95

1" Screw-Type Binding Posts



- For both wire and standard banana
- 0.16" hole for banana test leads
- Chassis mount with lock washer and nut
- Solder tab hole: 0.06" diameter
- Size: 1.0"L x 0.5"Dia.

Requires: 0.32" mounting hole

Includes: One red and one black insulated post

Part No.	Description	1	10	100	1000
71239CF	Binding posts (2)	$.99	$.85	$.69	$.59

1 3/4" Screw/Solder Binding Posts



- For both wire and standard banana
- 0.16" hole for banana test leads
- Solder post: 0.0625" diameter • Chassis mounting
- Size: 1.8"L x 0.5"Dia.

Includes: One red and one black insulated post

Part No.	Description	1	10	100	1000
77690CF	Binding posts (2)	$1.09	$.95	$.79	$.69

Double Binding Posts – Dual Banana



- Red/Black design • Screw-mount
- 0.72" between posts • Size: 1.6"L x 1.4"W

Part No.	Description	1	10	100
125196CF	Screw mount bind post	$3.95	$3.45	$3.19

Single Binding Post to BNC Male

See page 135 for BNC Connectors



100600CF

- Binding post with captive thumb nut
- Accepts standard banana plugs
- Operating voltage: 500 VRMS
- Brass nickel plated

Part No.	Description	1	10	100
100600CF	Red binding post	$1.49	$1.19	$.95
100618CF	Black binding post	1.49	1.19	.95

BNC to Double Binding Posts – Dual Banana

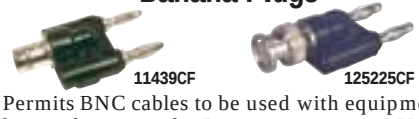


125233CF

- Red/Black design

Part No.	Description	1	10	100
125233CF	BNC-female	$4.95	$4.49	$4.05
99354CF	BNC-male	4.95	4.49	4.05

BNC to Standard Double Banana Plugs



11439CF 125225CF

Permits BNC cables to be used with equipment having banana jacks. Lower connection: BNC; upper connection: double banana plug on .750" centers. Cross holes .166" diameter in body provide side stack-up connections.

Part No.	Description	1	10	100
11439CF	BNC banana plug (F)	$4.49	$4.05	$3.65
125225CF	BNC banana plug (M)	5.49	4.95	4.45

Test Equipment

Protected Banana Style Multimeter Test Probes



- Threaded/pointed test tip
- 18 AWG wire
- Black and red
- 42" long
- 2 per package

Part No.	Description	1	10	25
77737CF	Protected probes	$6.49	$5.85	$5.25

Standard Banana Style Multimeter Test Probes



- Black and red
- 18 AWG wire
- 42" long
- 2 per package

Part No.	Description	1	10	25
77745CF	Std. banana probes	$7.69	$6.95	$6.25

PROBE MASTER Probe Test Leads



174625CF



212222CF

- 23K gold tips
- Silicon wire
- 1000V rated
- Length: 3'3"
- Spring loaded micro tip

174625CF Includes: 8 plunger type tips

212222CF Includes: Screw-on alligator clips, spade lugs and spring hooks

Part No.	Description	1	10	25
174625CF	Micro tip test leads	$34.95	$31.49	$28.95
212222CF	Softie test leads	23.95	22.75	21.89

PROBE MASTER Probe Kits



212249CF

- Rating: 1000V 10A
- Gold tips and contacts

212231CF: Universal probe kit includes leads with shrouded right angle banana plug, probes, sprung hook probes, alligator clips and spade lugs

212249CF: Electronic deluxe probe kit includes same as P/N 212231, plus extender probes, minigator leads, .025" wire wrap leads, pico hooks and pincer hooks

Part No.	Description	1	10
212231CF	Universal probe kit	$39.99	$37.99
212249CF	Electronic deluxe probe kit	74.95	67.49

Pomona® Replacement Probe Test Lead Set



- Set of two PVC 48" insulated leads, probe to banana plug
- Fits all DMMs
- Right-angle multimeter connectors

Part No.	Product No.	1	10	25
155951CF	5519A	$12.95	$11.49	$10.49

Breadboard-Pin to Breadboard-Pin Test Leads



- 4 each red, yellow, blue, black, white
- 5.9" long
- 20 AWG wire
- 20 per package

Part No.	Description	1	10	25
77825CF	Breadboard pin leads	$12.95	$11.69	$10.49

Pomona® Basic Electronic DMM Test Lead Kit

Kit contains 2 each (black/red):



- Test probes with silicone insulated lead
- Slide-on extended tips & alligator clips
- Supplied in a reusable plastic case
- 48" leads
- Fits most equipment with banana jacks

Part No.	Product No.	1	10	25
155942CF	5672A	$23.95	$19.95	$18.95

Universal Test Lead Kit



Includes: 3 ft. black/red cables, 4.5" black/red insulated test probes, 0.8" needle probes, spade terminals, 2 sets of 4 pieces each red/black insulated alligator clips and banana plug

Part No.	Description	1	10	100
168516CF	Universal kit	$8.95	$7.95	$6.95

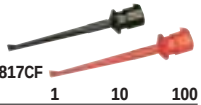
Micro Test Clip



- One piece per package

Part No.	Description	1	10	100	1000
153162CF	1.6" micro test clip	$.75	$.59	$.39	$.29

Mini Test Clips



114817CF

- Two lengths

Includes: One black and one red hooked probe clip

Part No.	Description	1	10	100
114809CF	1.75" mini test clips	$1.89	$1.49	$1.35
114817CF	3.5" mini test clips	1.75	1.55	1.39

Mini-Clip Test Leads



These spring loaded mini-clips hook easily to IC pins for testing.

- Set of five: red, blue, green, black and yellow
- 14"L; clips on both ends
- 26 AWG to 300V CSA/UL approved wire

Part No.	Description	1	10	100	1000
135298CF	Mini test leads	$11.49	$10.39	$9.29	$8.39

More Test Lead Kits for DMMs on page 151

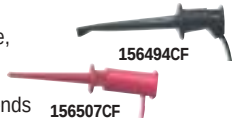


We'll match the advertised price of any like product.

Jameco's Low-Price Guarantee

It's that simple!

Pomona® Minigrabber® Test Clip Patch Cord Kits



156494CF

156507CF

- One each of 10 colors: black, brown, red, orange, yellow, green, blue, violet, gray and white
- 24" leads; clips on both ends

Part No.	Prod. No.	Description	1	10
156494CF	5523	Patch cord (hook)	$34.95	$31.49
156507CF	5521	SMD cord (jaws)	59.95	53.95

BNC to Clip Test Cables



11421CF

11463CF

BNC connectors are designed for signal frequencies into the gigahertz range, making them ideal for communications, video & test equipment.

- Micro-clip or mini-clip
- Length: 39"

Part No.	Description	1	10	50	100
11421CF	Micro-clip RG174	$3.99	$3.19	$2.89	$2.59
11463CF	Mini-clip RG174	4.39	3.99	3.59	3.19

Pomona® BNC to Minigrabber® Test Clips



- RG 174/U, .100" O.D.
- Rating: 300 VRMS max., +50˚C (+122˚F) max.
- Strain relief: PVC molded directly to connector
- Length: 36"

Part No.	Prod. No.	Description	1	10
176954CF	5187-K-36	Minigrabber®	$21.95	$19.95

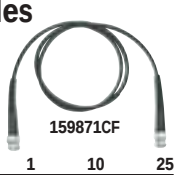
Pomona® BNC Male w/ Molded Strain Relief to Minigator® Test Clips



- RG 58C/U, .195" O.D.
- Rating: 45 VRMS max., +50˚C (+122˚F) max.
- Jaws open to .187" max.
- Length: 36"

Part No.	Prod. No.	Description	1	10
176971CF	4532-C-36	BNC/Minigator®	$17.95	$15.95

Pomona® BNC Cables

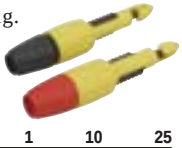


159871CF

- RG58 C/U 50Ω cable
- BNC male connectors
- Molded strain relief
- Length: P/N 159871CF: 36" P/N 159880CF: 60"

Part No.	Product No.	1	10	25
159871CF	2249-C-36	$15.95	$14.39	$12.95
159880CF	2249-C-60	16.95	14.95	12.95

Insulation-Piercing Test Clips with Banana Jack



Makes contact with insulated wires without cutting stripping. Pierces insulation on wires from 22 to 14 AWG.

- Op. V/A: 30VAC or 60VDC/1A max.

Part No.	Description	1	10	25
217453CF	Piercing clips	$29.95	$27.95	$26.95

ExStik pH Water Proof Meters



This compact, portable pH meter provides a low-cost method for monitoring pH. Ideal for measuring chlorine in drinking water, cooling towers and waste water discharges. Waterproof design floats in water and protects the meter in wet environments. Flat surface electrodes also provide surface pH spot measurements.

- Simultaneous display of pH and temperature
- Measure pH from 0.00 to 14.00 with accuracy of ±0.01pH
- Automatic temperature compensation
- Measures temperature from 23˚F to 194˚F (-5˚C to 90˚C)
- Smart chip predicts pH electrode performance
- "CAL" indicator alerts user when to recalibrate
- Large 3½-digit display with bar graph
- Bar graph originates at neutral point (7.0pH)
- Tripak buffers: 6 each of 4, 7, 10 pH and 2 rinsing solutions
- Size: 6.8"L x 1.6"W x 1.4"T • Weight: 0.3 lbs.

Includes: Meter and electrode, protective sensor cap, sample cup, 4 LR44 button batteries, and neckstrap

Part No.	Description	1	5
218122CF	pH waterproof meter	$78.95	$74.95
218131CF	Tripak buffers for calibration	24.95	23.69
218165CF	Carrying pouch	18.95	17.95

Heavy Duty pH/mV Temperature Meter

This is an ideal meter for field measurement of pH, millivolts and temperature with laboratory-quality accuracy at a very attractive price.



- Dual display for pH or mV and temperature
- Degrees C˚/F˚ switchable
- Easy 2-point slope and cal adjustments at pH4 and pH7
- Min./max., and average recall
- Super-large LCD with contrast adjust
- Manual and auto temperature compensation using temperature probe
- Auto shutoff and data hold
- Low battery indicator
- Size: 7.0"L x 2.9"W x 1.3"T
- Weight: 0.8 lbs.

Includes: Temp. probe, pH probe and carrying case

Part No.	Description	1	5
223861CF	Heavy duty temp. meter	$268.95	$255.49
218131CF	Tripak buffers for calibration	24.95	23.69
218149CF	Vinyl carrying case	9.95	9.49

Opening an account is easy!!
Call 1-800-831-4242 for details today.



Corporate Customers

Pro-Vane Thermo-Anemometer



Remote vane rotates freely to measure airflow and temperature. Ideal for checking performance of fans, blowers, exhaust hoods and HVAC applications.

- 2.83" remote vane wheel
- Data hold function
- Super large 0.7" LCD display
- Measures air velocity as ft/min, m/s, km/h, knots
- Utilizes Type K sensor for thermometer measurements in the range of 32˚F to 140˚F (0˚C to 60˚C) with accuracy of 1.5˚F (0.8˚C) with 0.1˚ resolution
- Durable housing case and sensor made of ABS plastic with 39" cable
- Size: 6.6"L x 3.2"W x 1.2"T • Weight: 0.8 lbs.

Includes: Sensor, hard vinyl carrying case, and 9V battery

Part No.	Description	1	5
218093CF	Thermo-anemometer	$198.95	$179.95

Mini Thermo-Anemometer





Foldable housing extends 9" for better reach

Waterproof, pocket size with air velocity, temperature and windchill, all in one. Ideal for checking blowers, fans, exhaust hoods and balancing AC/HT ducts.

- Measures temperature and windchill from 0˚F to 122˚F (-18˚C to 50˚C)
- Measures wind speed in ft/min. MPH, m/s, km/h, knots and Beaufort force
- Large dual display for air velocity and temperature
- Auto shut-off 20 minutes after last key is pressed
- Water resistant housing floats and drop tested to 6'

Includes: CR2032 lithium battery and lanyard

Part No.	Description	1	5
218085CF	Mini thermo-anemometer	$88.95	$84.49

2dB Sound Level Meter



Ideal instrument to measure OSHA compliance, equipment design, community sound ordinances and sound system installations.

- High & low measuring ranges: High: 75 to 130dB; Low: 35 to 90dB w/ 0.1dB res.
- A and C weighing
- Large: 0.5", 3½-digit display
- Meets ANSI and IEC 651 Type II standards
- Fast/slow response; max. hold with reset button
- Built in calibration check
- Utilizes a 0.49" condenser microphone
- Size: 9.5"L x 2.7"W x 1.0"T • Weight: 0.5 lbs.

Includes: Hard vinyl case and 9V battery

Part No.	Description	1	5
218114CF	Digital decibel sound meter	$248.95	$236.49

Electromagnetic Radiation Meter



Electromagnetic radiation is all around us, some of it good, some bad; but there's never been an easier, more portable device to detect and measure it until the ZAP Checker. Now you can measure your microwave oven's emissions or take engineering measurements of HF, VHF, or UHF transmissions. ZAP Checker does it all. Its portability, multiple settings, ultra-high sensitivity and expanded bandwidth allows you to search out EMR whenever and wherever needed.

Totally Unique

- 10MHz to 4.5GHz

Part No.	Description	1	10
217808CF	ZAP Checker	$129.95	$114.95

Laser and Contact Tachometer



This combination non-contact and contact laser tachometer is ideal for measuring the revolving speed of fans, motors, gears, pumps, conveyors, and elevators.

- Photo tachometer range: 10 to 99,999 RPM with accuracy of ±0.05% + 1 digit
- Contact tachometer range: 0.5 to 19,999 RPM with accuracy of ±0.05% + 1 digit
- Measures from up to 6.5 feet from the target for improved safety and accessibility
- Memory stores last, maximum and minimum readings
- Display characters reverse direction for measurement type selected
- Large 0.4" (5-digit) LCD display
- Weight: 0.7 lbs.

Includes: 4-AA batteries, tips and wheel for RPM or linear surface speed, reflective tape, & carrying case

Part No.	Description	1	5
218106CF	Laser contact tachometer	$278.95	$264.95

Digital Light Meter



- Measures in Lux and footcandle ranges
- Range: Lux – 0 - 50,000 Lux (3 ranges); footcandle – 0 - 5,000 Fc (3 ranges)
- Analog output connectors for external recording
- Separate light sensor for optimum location sampling
- 0.5" digit height
- Dimensions (sensor probe): 3.2"L x 2.2"W x 0.5"H
- Weight: 0.9 lbs. • One-year warranty

Part No.	Description	1	10
131764CF	Digital light meter	$99.95	$89.95

Find more products on the Jameco website.
www.Jameco.com

Temperature/Humidity Meter with Clock & Min/Max Memory



- Large bright LCD displays for temperature, humidity, and time
- Temperature range: 14˚F to 140˚F (-10˚C to 60˚C)
- Humidity range: 10 to 85%
- Clock function displays 12 hour time with AM/PM indication or 24 hour time
- Min./Max. memory function with reset for temperature and humidity
- Size: 4.3"L x 2.8"W x 0.8"Thick

Includes: Built-in tilt stand, AAA battery and wall mounting bracket

Part No.	Description	1	10	25
198053CF	Temp/humidity meter	$28.95	$25.95	$24.49

Indoor/Outdoor Temperature Alarm



- Large 1.5" LCD display
- Displays indoor/outdoor temp. from -58˚ to 158˚F
- Single point alarm (external sensor): set alarm when temperature is above Hi-set or below low set point
- Dual point alarm (external sensor): set alarm when temperature is either outside of or within two set points
- Accurate to 1.8˚F with 0.1˚F resolution
- Audible alarm and red/green LED indicators
- Size: 2.75"L x 2.75"W

Includes: 10 ft. weatherproof outdoor sensor, built-in stand, AAA battery and hardware

Part No.	Description	1	10
198037CF	Temperature alarm ~~$18.95~~	$17.39	$16.15

Temperature/Humidity Meter with Min/Max Memory



- Displays (%) relative humidity and temperature (˚C/˚F) simultaneously
- Min./Max. memory on both relative humidity and temperature with reset function
- Temperature range: 14˚F to 140˚F (-10˚C to 60˚C);
- Humidity range: 10% to 99%
- 1" high readout
- Size: 4.3"L x 3.9"W x 0.8"Thick

Includes: Built-in tilt stand, AAA battery, and wall mounting bracket

Part No.	Description	1	10	25
198045CF	Temp./humidity meter	$38.95	$34.95	$32.95

See the yellow and green highlighted items.

Jameco Special Value!

Details on page 3.

Pocket IR Thermometer

The pocket IR thermometer measures the surface temperature of objects which are difficult to reach or unsafe to contact. It also measures hot spots in electrical panels and equipment. In-process temperature measurements. With a 6:1 ratio field of view and built-in laser for improved aim, it covers 90% of surface applications for temperature measurement.



- Temperature range: -58˚F to 518˚F
- Built-in laser pointer to improve aim
- ˚F/˚C switchable
- Fixed emissivity (0.95) covers 90% of surface applications
- Visual overrange indicator
- 6:1 field of view
- Data hold and max hold
- Pocket size meter

Best Seller!

Includes: 2 AA batteries

Part No.	Description	Price
219361CF	Pocket IR thermometer	$59.99

3999-Count Multimeter with Triple Display, USB Interface and Temperature



- 3¾-digit LCD display with triple display (main/sub1/sub2) and analog bar (0.76" digit height)
- Dual display readout for temperature in ˚C and ˚F
- Data hold, memory, relative offset, recall, range, minimum/maximum hold functions
- Auto power off • Auto ranging
- Computer interface: (USB) USB-A male to USB-B male cable with Windows® 98/ME/2000 software (3.5" diskette)

METEX®



- **DC voltage ranges**: 400mV – 1000V
- **AC voltage ranges**: 4V – 750V
- **DC current ranges**: 400µA – 20A
- **AC current ranges**: 400µA – 20A
- **Resistance ranges**: 400Ω – 40MΩ
- **Capacitance ranges**: 4nF – 200µF
- **Frequency ranges**: 4kHz – 4MHz
- **Temperature**: -40˚F to 2192˚F (-40˚C to 1200˚C)
- Diode, continuity, transistor hFE, and logic test
- Size: 3.5"W x 1.7"D x 7.8"H • Weight: 1.6 lbs.

Includes: Manual, probes, K-type thermocouple, USB-A male to USB-B male cable, software and 9V battery

Part No.	Product No.	1	10
215589CF	M-3890D	$99.95	$94.99

LCD Stopwatch with Alarm and Calendar



- Water resistant housing, complete with 39" neck strap and battery
- Large LCD display
- Accurately times a two-person competition
- Displays accumulated elapsed time and split-time measurements
- Timing capacity of 23 hours, 59 minutes, and 59 seconds
- 12/24 hour clock operation with settable hour chime, wake and snooze alarm
- Accurate to ±3 seconds/day
- Size: 2.3"W x 2.8"H x 0.5"Thick

Part No.	Description	1	10
154739CF	Stopwatch w/ Alarm ~~$18.95~~	$17.95	$16.95

Non-Contact Infrared Thermometer

Non-contact thermometer with laser pointer measures up to 600˚F (320˚C)



- Temperature range: 0˚F to 600˚F (-20˚C to 320˚C)
- Basic accuracy: ±2%
- Built-in laser pointer improves aim and accuracy
- Field of view: 6:1 (6" distance measures 1" target)
- 2000-count backlit LCD display
- Audible and visible over range indicators • Backlit display
- Automatic data hold and power off
- Fixed emissivity covers 90% of surface application
- Size: 8.3"L x 3.5"W x 1.5"D
- Weight: 0.4 lbs.

Includes: 9V battery

Part No.	Description	1	10
211588CF	Non-contact thermometer	$88.95	$84.50

Waterproof Thermometer



- 2.75" stainless steel stem
- Digital display of 0.1˚ resolution
- ˚C/˚F switchable ranges -40˚F to 392˚F (-40˚C to 200˚C)
- Max./min. recall of high and low temperature
- HOLD and AUTO-OFF features
- Size: 5.9"L x 0.8"W x 0.7"T
- Weight: 0.1 lbs.



Waterproof housing allows thermometer to be completely submerged in water

Includes: LR44 button battery and protective cover

Part No.	Description	1	5
218077CF	Waterproof thermometer	$18.95	$17.95



See page 212 for Batteries.



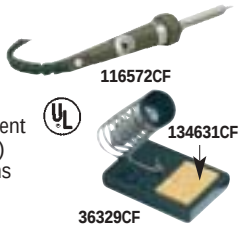
Test Equipment

16 to 30-Watt Variable Soldering Iron, Stand & Sponge

116572CF:
- Length: 7.5"

36329CF:
- Black anodized steel base – 5.3"L x 3.3"W
- See below for replacement sponge (P/N 134631CF)
- Fits most soldering irons .85" diameter

Includes: Sponge



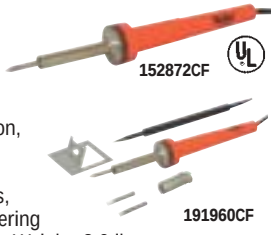
Part No.	Description	1	10	100
116572CF	Soldering iron	$16.95	$15.29	$13.75
36329CF	Soldering stand	4.25	3.85	3.45
134631CF	Sponge (for P/N 36329CF)	2.99	2.69	2.49

Weller® Light-Duty 23-Watt Soldering Iron & Kit

- Ideal for hobby or electronics kit work
- 1/8" removable tip
- Indicator light
- Length: 8"
- 120VAC @ 60Hz

191960CF: Includes iron, MT1 (cone shaped), MT2 (screwdriver), MT3 (chisel) 1/8" tips, lead free solder, soldering aid tool and stand • Weight: 2.0 lbs.

189384CF/191978CF/191986CF: 2 pack



Part No.	Description	1	10	25
152872CF	Iron only (SP23L)	$11.95	$10.79	$9.69
191960CF	Iron kit (SP23LK)	17.19	16.35	14.89
189384CF	1/8" cone tip (MT1)	4.95	4.49	3.95
191978CF	1/8" scrdrvr tip (MT2)	$4.95 3.79	3.59	3.45
191986CF	1/8" chisel tip (MT3)	4.95	4.49	3.95

Thermally Balanced 25-Watt Soldering Iron

The XY200GX is a thermally balanced soldering iron for the professional or hobbyist.



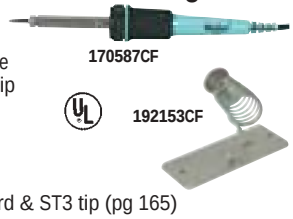
- 120VAC; 6' cord • 25-watt power consumption
- Interchangeable tips (pg 164)
- One-year warranty • UL listed • Length: 8.0"

Includes: 1.6mm conical tip

Part No.	Description	1	10	25
129040CF	25W solder. iron	$11.49	$10.35	$9.35

Weller® High-Quality 25-Watt & 35-Watt Soldering Irons

- Interchangeable heater elements
- Lightweight handle with cushioned grip
- Quick change knurled collar
- Length: 9"
- 120VAC @ 60Hz



Includes: Power cord & ST3 tip (pg 165)

Part No.	Product No.	Description	1	10
170587CF	WP25	25W solder iron	$32.95	$31.35
192102CF	WP35	35W solder iron	39.95	35.95
192153CF	PH25	Solder iron stand	16.19	15.35

Special Low-Cost Irons

30-Watt Soldering Iron and Stand

- UL approved
- Ideal for precision work
- 1/4" removable tip
- Length: 8.3"
- 110-120VAC



Part No.	Description	1	10	100
102461CF	30W soldering iron	$4.79	$4.35	$3.89
116020CF	Replacement tips (2)	2.25	1.79	1.25
36329CF	Soldering stand	4.25	3.85	3.45

35-Watt Soldering Iron

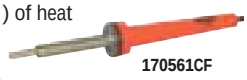
- UL approved
- Ideal for maintenance and hobby use
- 0.157" removable tip
- Length: 8.1" • 110-120VAC



Part No.	Description	1	10	100
208987CF	35W soldering iron	$2.99	$2.69	$2.45
208995CF	Replacement tips (2)	.99	.89	.79
209074CF	Solder roll, 8mm (.031")	5.49	4.89	4.39

Weller® 40-Watt Soldering Iron

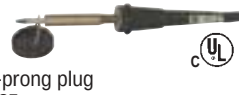
- Develops 900˚F (482˚C) of heat
- MT10 1/4" (10mm) diameter replaceable nickel plated copper tip
- Stainless steel barrel • Length: 8.25"
- 120VAC @ 50-60Hz • Weight: 0.27 lbs.
- Heat & impact resistant handle



Part No.	Prod. No.	Description	1	10
170561CF	SP40L	40W solder iron	$19.95 $15.95	$14.39
188980CF	MT10	1/4" chisel tip 2 pk	6.99	6.29

Economical, High-Performance Soldering Irons

High-quality soldering irons that are suitable for both professional and do-it-yourself applications.



- 25W, 40W, & 60W
- Length: 9"
- 120VAC; 6' cord with 3-prong plug

Tips for 224611CF/224602CF:
226000CF chisel; **226018CF** conical

Tips for 195223CF:
226026CF chisel; **226034CF** conical

Part No.	Product No.	1	10	25
224611CF	200PHG-25W	$7.95	$7.15	$6.45
224602CF	200PHG-40W	9.95	8.95	8.09
195223CF	200PHG-60W	13.95	12.49	12.11
226000CF	44-240517 tip	.95	.85	.79
226018CF	44-240513 tip	.95	.85	.79
226026CF	44-240617 tip	1.95	1.79	1.59
226034CF	44-240603 tip	1.95	1.79	1.59

Weller® 100-Watt Soldering Iron

- "Closed loop" method of controlling maximum tip temperature
- Nominal heat-up time with 700˚F tip is 110 seconds



• 120VAC @ 60Hz input • Length: 6" • Wt.: 0.7 lbs.

Includes: CT6F7 (0.375" screwdriver tip; 700˚F)

Part No.	Prod. No.	Description	1	10
192081CF	W100PG	Solder iron	$62.95 $60.92	$57.19
192090CF	CT6F7	.375" scrwdrvr tip	$9.95 8.59	7.75

SMD Tweezer Iron

- Maximum efficiency ceramic heating elements insures rapid heat-up and instant heat recovery
- Max. temp.: 760˚F
- 120VAC
- Heater insulation exceeds 100MΩ
- Heater power consumption: 35W each

Includes: 0.095" tip



Part No.	Description	1	10	25
168410CF	Tweezer iron	$59.95	$53.95	$48.95
168583CF	Tip .078"	11.95	10.79	9.69
168591CF	Tip .590"	12.95	11.69	10.49

WAHL® Cordless Soldering Iron

The #1 choice for field service soldering!

IsoTip® Power Pro Model #7904
- 900˚F tip temperature
- Iron performance equivalent to 25-watt iron
- Solders 200+ joints or up to 30 minutes of continuous soldering
- LED indicator light
- Weight: 1.1 lbs.

Includes: Soldering iron, recharging stand, Ni-Cad battery pack, and tips



Part No.	Description	1	10
132783CF	Power Pro cordless iron	$58.95	$57.55

Weller® Cordless Soldering Iron Kit

- Self igniting and instant heat
- Adjustable temperature (25W to 125W)
- Auto switch off
- Visible gas level
- Additional tips can be special ordered
- 2 hours of heat on average tank setting



Includes: soldering tool, hot blower tip, hot knife tip, 2.4mm and 4.8mm double flat tip, cleaning sponge, storage case and instruction manual

Part No.	Prod. No	Description	1	10
152207CF	PSI-100K	Tool kit	$74.95	$71.29

Soldering Tip

What is the correct way to solder?



Follow these three steps:

Step 1: The connection to be soldered must be clean. A small file, sanding pen or steel brush can be used if needed. A good soldered connection also requires a good mechanical connection. Make sure that wires are firmly attached to terminals or each other before soldering.

Step 2: When using a new soldering tip, coat the tip with solder to prevent oxides from forming, then immediately brush off the excess with a soft cloth to form a smooth, silvery soldering surface. This process is referred to as "tinning".

Step 3: Apply tapered surface of the soldering iron tip to the connection (see picture above). Allow connection to become hot, then apply solder. Don't use the point to melt solder—let the connection melt it to avoid "cold" solder joints. When soldering delicate components, work quickly and use a heat sink to draw off damaging heat.

45-Watt Analog Display Soldering Station

Grounded Soldering Tip

- 500°F to 850°F • Fully grounded
- Insulated ceramic heating element for rapid heat-up and heat recovery • Wt.: 2.5 lbs.
- Heater insulation exceeds 100MΩ
- Zero voltage circuitry eliminating high voltage spike and magnetic field generation • Size: 7.0"L x 4.5"W x 3.5"H



Includes: Manual and 1.2mm diameter conical tip

Part No.	Product No.	Description	1	10	25
156785CF	379	Soldering station ~~$69.95~~	$59.95	$53.95	$48.95
156814CF	XYB01	Sharp conical chisel 1/32" tip	4.95	4.49	3.95
156822CF	XYB04	Conical chisel 1/16" tip	4.95	4.49	3.95
134631CF	SP715	Replacement sponge	2.99	2.69	2.49

60-Watt Digital & Analog Display Soldering Stations

Designed for soldering situations where precise temperature is required for sensitive components.

- Temperature is maintained at ±6°F
- Electronic temperature control from 392° to 878°F
- External calibration port
- CMOS devices protected against voltage spikes
- Power-on and heater-on LED indicators
- Size: 5.1"W x 8.0"D x 4.0"H
- Weight: 4.8 lbs.

Includes: One 1/16" tip (P/N 35115CF – below)

ESD Safe!



236101CF



219627CF

168401CF

Special 5% Bundle Bonus
Complete ISO 9000 digital station –
P/N 236101CF & 125508CF
Sold separately $409.90
Combined: P/N 207263CF
$388.95

Part No.	Product No.	Description	1	10	25
236101CF	XY9-60D/ESD	Digital soldering station – ESD safe	$109.95	$99.95	$89.95
219627CF	XY9-60A	Analog soldering station	99.95	89.95	79.95
168401CF	TWZ50ESD	SMD tweezer iron w/ 0.078" tip	79.95	71.95	64.95
168583CF	46-060102	Tip .078" for P/N 168401CF	11.95	10.79	9.69
168591CF	46-060115	Tip .590" for P/N 168401CF	12.95	11.69	10.49
236460CF	78-744615	Replacement sponge for both stations	2.99	2.69	2.49

60-Watt Desoldering & Solder/Desoldering Stations



125508CF



125516CF

- Simple fine tune feature to select within 300–850°F range
- Vacuum pump activated "on demand" using finger tip switch on desolder handle
- CMOS devices protected against voltage spikes

125508CF:
- Size: 9.2"L x 7.2"W x 3.6"H
- Weight: 13.1 lbs.

Includes: 3/64" conical tip and solder holder



223853CF

125516CF/223853CF:
- Size: 11"L x 10"W x 4.0"H • Weight: 18.1 lbs.

Includes: 1/32" conical tip, solder holder, tip cleaner and tweezers

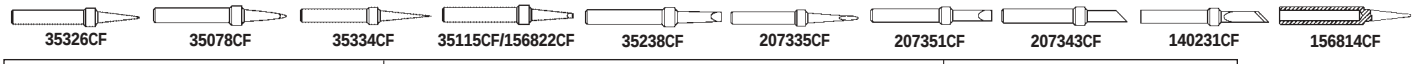
223853CF: Dual display of tip temperature with selector switch for °C or °F and read/set temperature

Part No.	Product No.	Description	1	10	25
125508CF	968	Desoldering station ~~$309.95~~	$299.95	$269.99	$242.99
125516CF	988	Solder/desoldering station ~~$499.95~~	399.95	359.99	323.99
223853CF	988D	Solder/desoldering (dual display)	459.95	413.95	372.55
207271CF	TWZ60ESD	SMD tweezer iron with .078" tip	69.95	62.95	56.95
207221CF	D1A60A	Replacement desoldering iron	74.95	67.49	59.95
168583CF	46-060102	Tip .078" for P/N 207271CF	11.95	10.79	9.69
168591CF	46-060115	Tip .590" for P/N 207271CF	12.95	11.69	10.49
236460CF	78-744615	Replacement sponge for all stations	2.99	2.69	2.49

Replacement Sponges for Legacy Models

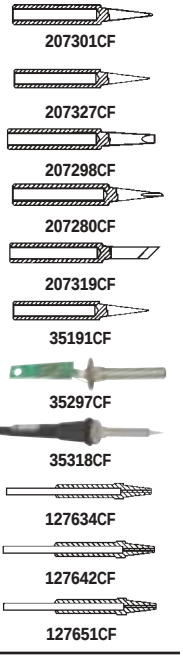
Part No.	Product No.	For Station	1	10	100
134640CF	SP815	P/N 114569CF (168-3C)	$2.99	$2.69	$2.49
134631CF	SP715	P/N 162456CF (XY-60D)	2.99	2.69	2.49

Tips & Replacement Parts For XYTronic Soldering and Desoldering Products



35326CF | 35078CF | 35334CF | 35115CF/156822CF | 35238CF | 207335CF | 207351CF | 207343CF | 140231CF | 156814CF

Part Number	Product Number	Description	For XYTronic Model Numbers (*Legacy Models): 136ESD	168*	200CX, 200PHG	370	AESD*, X1960A/DESD	960D*	968	988	996SDA*	3SD258*	168-3C	2660*	Pricing: 1	10	25
35326CF	XY401	Soldering tip - conical bevel 1/32"		✓	✓		✓				✓	✓	✓		$4.49	$3.95	$3.65
35078CF	XY402	Soldering tip - semi-chisel 1/32"		✓	✓		✓				✓	✓	✓		4.49	3.95	3.65
35334CF	XY403	Soldering tip - conical sharp 1/64"		✓	✓		✓				✓	✓	✓		4.49	3.95	3.65
35115CF	XY404	Soldering tip - conical chisel 1/16"		✓	✓		✓				✓	✓	✓		4.49	3.95	3.65
35238CF	XY405	Soldering tip - semi-chisel wide 1/8"		✓	✓		✓				✓	✓	✓		4.49	3.95	3.65
207335CF	XY406	Soldering tip - long conical chisel 3/64"		✓	✓		✓				✓	✓	✓		2.95	2.69	2.39
207351CF	XY410	Soldering tip - chisel 3/16"		✓	✓		✓				✓	✓	✓		2.95	2.69	2.39
207343CF	XY411	Soldering tip - wedge 3/16"		✓	✓		✓				✓	✓	✓		2.95	2.69	2.39
140231CF	XY430	Soldering tip - SMD flat pack 7/32"		✓	✓		✓				✓	✓	✓		8.95	7.95	7.25
156814CF	XYB01	Soldering tip - sharp conical chisel 1/32"	✓			✓				✓					4.95	4.49	3.95
207301CF	XYB02	Soldering tip - conical semi-sharp 1/32"	✓			✓				✓					4.95	4.49	3.95
207327CF	XYB03	Soldering tip - conical sharp 1/64"	✓			✓				✓					4.95	4.49	3.95
156822CF	XYB04	Soldering tip - conical chisel 1/16"	✓			✓				✓					4.95	4.49	3.95
207298CF	XYB05	Soldering tip - semi-wide chisel 1/8"	✓			✓				✓					4.95	4.49	3.95
207280CF	XYB06	Soldering tip - long conical chisel 3/64"	✓			✓				✓					4.95	4.49	3.95
207319CF	XYB30	Soldering tip - wedge blade 3/16"	✓			✓				✓					8.95	8.09	7.25
35191CF	XY25	Soldering tip - conical sharp 1/64"												✓	6.49	5.85	5.25
35297CF	XY37	Heating element- (nichrome)		✓	✓		✓				✓		✓		20.95	18.95	16.95
35318CF	XY48	Assembly - 60W w/ nichrome heater		✓	✓		✓				✓		✓		30.95	27.95	24.95
127634CF	XYD10	Desoldering tip - 1.0mm (.0394")						✓	✓		✓				8.95	7.95	7.25
127642CF	XYD12	Desoldering tip - 1.2mm (.0472")						✓	✓		✓				8.95	7.95	7.25
127651CF	XYD15	Desoldering tip - 1.5mm (.0586")						✓	✓		✓				8.95	7.95	7.25



207301CF | 207327CF | 207298CF | 207280CF | 207319CF | 35191CF | 35297CF | 35318CF | 127634CF | 127642CF | 127651CF

60-Watt Analog Display Soldering Station



Maintains a steady temperature using a cartridge heating element, providing a longer life for the solid soldering tip.

- Electronic temperature control: 300°F to 850°F
- CMOS devices protected against voltage spikes
- Size: 4.3"W x 6.0"D x 3.4"H • Weight: 4.1 lbs.

Includes: One 1/16" tip (P/N 35115CF – opposite pg.)

236460CF: Replacement sponge
168401CF: SMD tweezer iron w/ .078" tip
168583CF: Tip .078" for 168401CF
168591CF: Tip .590" for 168401CF

Part No.	Product No.	1	10	25
236110CF	168-3C	$89.95	$79.95	$72.95
236460CF	78-744615	2.99	2.69	2.49
168401CF	TWZ50ESD	79.95	71.95	64.95
168583CF	46-060102	11.95	10.79	9.69
168591CF	46-060115	12.95	11.69	10.49

42-Watt Controlled-Output Soldering Station



- Transformer powered soldering station complete with macro style, low voltage, temperature controlled soldering iron
- Closed loop method of controlling max. tip temperature for protection of temperature sensitive components
- Power unit housing features impact resistant plastic for durability
- Quick disconnect plug for soldering iron and lighted on/off switch
- Separate conductor grounds iron tip and terminates third pin of power cord
- 120VAC @ 60Hz input
- Uses PT series tips
- Size: 5.9"L x 4.5"W x 3.6"H • Weight: 4.0 lbs.

Includes: Soldering iron and PTA7 tip (below)

Part No.	Prod. No.	Description	1	10
170552CF	WTCPT	Solder station ~~$148.95~~	$129.95	$124.95
192161CF	TC201T	Replac. iron	68.95	62.05
192170CF	PTA6	.062" screwdriver tip (600˚F)	6.95	6.25
192188CF	PTA7	.062" screwdriver tip (700˚F)	5.69	5.15
192196CF	PTA8	.062" screwdriver tip (800˚F)	5.69	5.15

Don't worry about backorders.
Over 99% of our products are in stock!

We'll Send It Today!

Just place your order by 6PM EST for same business day shipment.

Weller® 40-Watt Soldering Station



- Lighted on/off switch
- Adjustable power from 5 watts to 40 watts
- 120V @ 60Hz
- Temperature is electronically controlled from 350° to 850°F
- Size: 5.5"L x 4.5"W x 3.5"H • Weight: 1.9 lbs.

Includes: ST3 1/8" screwdriver tip, soldering station and manual

Part No.	Prod. No.	Description	1	10
146595CF	WLC100	Soldering station	$48.95	$44.09

Weller® Soldering Tips

Replacement Tips for WLC100, WP25 & WP23



146608CF 146616CF 146624CF

Part No.	Prod. No.	Description	1	10
146608CF	ST1	Screwdriver tip 1/16"	$5.95	$5.35
146616CF	ST3	Screwdriver tip 1/8"	5.95	5.35
192145CF	ST6	Scrwdriver tip .031"	5.25	4.75
146624CF	ST7	Conical tip 1/32"	5.95	4.95

50-Watt Analog & Digital Display Soldering Stations



Innovative heater and sensor combination for quick heat-up and rapid temperature recovery

- Tip temperature offset capability allows user to reset temperature readings to match tip size and style
- Wireless temperature lockout
- Auto power-down after 90 minutes of inactivity
- Temperature range: 350˚F to 850˚F
- Temp. accuracy: ±9.0F
- ESD safe
- Size: 5.9"L x 4.5"W x 3.6"H • Weight: 4.0 lbs.

217461CF



233533CF

Includes: PES51 50W soldering iron with ETA tip, PH50 stand and sponge, and adjustment tool

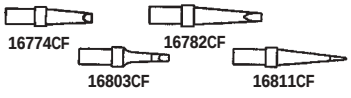
Part No.	Product No.	Description	1	10
217461CF	WES51	Analog	$115.95	$105.95
233533CF	WESD51	Digital	158.95	150.99

Weller® Soldering Tips

Replacement Tips for WES51

- Tip leakage: less than 2mV
- Tip to ground resistance: less than 2Ω
- Tips also used with WCC100 station
- Additional tips can be special ordered





16774CF 16782CF 16803CF 16811CF

Part No.	Prod. No.	Description	1	10
16774CF	ETA	Screwdriver 1/16"	$6.95	$6.25
16782CF	ETJ	Long screwdriver 1/32"	6.95	6.25
16803CF	ETR	Narrow scrwdrvr 1/16"	6.95	6.25
16811CF	ETS	Long conical 1/64"	6.95	6.25

65-Watt Soldering Station with Micro Soldering Pencil



The micro soldering pencil has the shortest tip-to-grip distance on the market today, giving you excellent control by putting you closer to the work. The heating element is contained in the pencil rather than the tip so you do not throw away a good heater every time you wear out a tip.

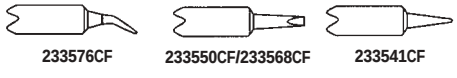
- Fast heat-up and thermal recovery
- Tips are secured to the pencil by use of a threaded end, eliminating the use of a barrel nut
- Temperature is reduced to 300˚F (150˚C) when pencil is not used for 20 minutes. Unit is switched off after 60 minutes of inactivity
- ESD safe to protect sensitive components
- Voltage: 120V input; 24V output
- Temperature range: 150˚F-850˚F (66˚C-454˚C)
- Temperature accuracy: ±9˚F (±5˚C)
- Temperature stability: ±10˚F (±6˚C)

Includes: WSLPU power unit, WMP soldering pencil with NT1 tip, and WMPH iron stand

Part No.	Product No.	1	5
227408CF	WSL	$255.95	$237.95

Weller® Soldering Tips

Replacement Tips for WSL



233576CF 233550CF/233568CF 233541CF

Part No.	Prod. No.	Description	1	5
233576CF	NT1X	0.8mm bent round	$8.89	$8.45
233550CF	NTA	0.6mm chisel	7.59	7.25
233568CF	NTB	2.4mm chisel	7.59	7.25
233541CF	NT1	.25mm micro	7.59	7.25

SMD Rework Station



Engineered to meet the demanding needs of today's electronic industry, technician service/repair centers, and assembly work. With this system, replacement of surface mount devices or dual-in-line components is a snap. It not only increases productivity in SMD assembly repair, but achieves a new standard of quality, superior performance, and ease of operation.

- High-performance, inexpensive, versatile
- Adjustable temperature: 250˚C - 450˚C (482˚F - 842˚F)
- Thermocouple sensor for stable temperature
- Long-life ceramic heating element
- Rapid heat-up and recovery
- 40W station, 25W ceramic element
- Size: 7.4"L x 5.0"W x 3.3"H • Weight: 2.6 lbs.

Includes: Base power unit, sponge, stand, surface mount tweezer iron, and stand for tweezers

Part No.	Description	1	10	25
224629CF	Rework station	$89.95	$80.99	$72.85

Fume Extractor and Filters

Absorbs noxious lead fumes using activated-carbon filter and a high-efficiency fan



- Operate continuously providing filtered air
- Air flow: 115 CFM
- Compact size allows use on work bench w/ minimum space
- 120VAC, 60Hz, 22 watt
- On/off power switch
- Aerodynamic hood design for effective removal of solderfumes
- Noise: 49dB fan • Fuse protected
- Static ground jack • One-year warranty
- Removable carbon-impregnated filter
- Black anodized aluminum case
- Size: 6.4"W x 4.6"D x 7.9"H • Weight: 4.6 lbs.

Includes: Detachable power cord

Part No.	Description	1	10	25
120150CF	Fume extractor ~~$79.95~~	$58.95	$52.95	$47.79
127183CF	Replace. filters (2/pk)	10.95	9.95	8.95

Combination 42-Watt Soldering Station and Fume Extractor



- Power consumption: 42W @ 650˚F (soldering iron)
- Adjustable knob for temperature control: 500˚ to 800˚F
- Stability @ idle: ±9˚F
- Maximum air volume: 95/115CFM
- Electronic zero-voltage switching
- LED indicator for pilot light & lighted on-off switch
- Input voltage: 100-120VAC @ 60Hz
- Size: 6.4"W x 7.8"H x 4.7"D • Weight: 5.2 lbs.

Includes: Soldering iron, iron holder, sponge, carbon activated filter, power cord and manual

Part No.	Product No.	1	10	25
183169CF	456DLX	$99.95	$89.95	$80.99

Electric & Manual Desolder Pumps



19254CF

- Easily disassembled for cleaning
- Replacement tips available

19254CF: • UL listed
- One-hand operation
- Size: 10.5"L x1.0"Dia.



19166CF

19166CF: Size: 7.8"L x 0.8"Dia.

Part No.	Description	1	10
19254CF	Electric desolder pump	$26.95	$23.95
19166CF	Manual desolder pump	4.95	4.49
19262CF	1 tip for 19254CF	4.95	4.49
22091CF	2 tips for 19166CF	4.49	3.95

Vacuum Pen Tools



207239CF 207247CF

- ESD safe body
- Picks up components with weight of 1.1 lbs. or less

207239CF: 4 tips and cups
207247CF: Aluminum body; 6 tips and cups

Part No.	Description	1	10	25
207239CF	Handivac tool	$18.69	$16.79	$15.15
207247CF	Pen vac tool	37.95	34.25	30.49

Rosin Core Solder Rolls and Pocket Packs



141778CF 32117CF 170456CF 73576CF

* Organic core

Part No.	Mfr.	% Composition Tin	Lead	Silver	Dia. (In.)	Wt. (lbs.)	Pricing 1	10	50	100
73576CF	Kester (pak)	60	40	0	.031	0.04	$2.59	$2.35	$1.99	$1.85
32117CF	Kester	60	40	0	.031	1.00	13.19	11.89	10.69	9.59
73605CF	Kester (pak)	62	36	2	.020	0.10	1.75	1.49	1.31	1.15
112344CF	Kester	63	37	0	.020	1.10	17.95	16.19	14.55	13.09
151474CF	Kester*	63	37	0	.031	1.00	14.95	13.49	12.15	10.95
170456CF	Golden	60	40	0	.031	0.06	1.39	1.25	1.05	.74
141794CF	Super	60	40	0	.031	0.55	5.95	5.39	4.85	4.35
141786CF	Super	60	40	0	.031	1.10	7.95	6.95	6.25	5.59
141778CF	Super	60	40	0	.031	2.20	13.95	12.95	11.95	10.95

Lead-Free Solder Tip Tinner

Prevents oxide buildup and tin depletion on the tip. Increases tip life and heat transfer resulting in a better solder joint!



Safe and Effective!

- 0.7 oz. tin with self adhesive pad

Part No.	Description	1	10	50
132986CF	Lead-free tip tinner	$4.95	$4.59	$4.19

5' No-Clean Desolder Braids

Meets all of the most stringent soldering standards for worldwide application including: MIL-F-142560D Type R, NASA specification NHB5300.4, NPC200-4 and SP-5002.



139951CF 124126CF

TECHSPRAY

- Length: 5'

Part No.	Description	1	10	100
139951CF	.030"W desolder braid	$2.25	$1.95	$1.75
124126CF	.060"W desolder braid	2.35	2.15	1.95
124118CF	.075"W desolder braid	2.39	2.15	1.95

5' Desoldering Braids



41099CF

- Easy-to-use, handy dispenser
- Braided copper with flux

Part No.	Description	1	10	100
41081CF	.079"W braid (5')	$1.49	$1.35	$1.19
41099CF	.098"W braid (5')	1.55	1.29	1.15
153461CF	.120"W braid (5')	1.59	1.39	1.25

One-Shot Desoldering Gun

This low maintenance desoldering gun with self-contained vacuum pump is perfect for desoldering through-hole components.



- Power consumption: 60W
- Interchangeable standard tips
- Zero static tip, 3 wire grounded
- Sensitive where CMOS protection is needed
- Quick release stainless solder collector
- Electronic temperature control
- Ergonomic, lightweight design
- 120VAC • One-year warranty
- Gun casing size: 7.0"L x 4.0"W • Weight: 2.2 lbs.

Includes: 1.0mm tip

Part No.	Description	1	10	25
129066CF	Desolder gun	$99.95	$89.95	$79.95
140214CF	"Y" replacement tip	10.95	9.95	8.95
134594CF	1.0mm replace. tip	8.95	7.95	7.19
134607CF	1.2mm replace. tip	8.95	7.95	7.19

See previous pages for new Soldering Stations.

Soldering Tip Cleaner with Stand and Rosin Paste Flux

156777CF:



156777CF 73584CF

- For cleaning soldering iron tips without the use of water and sponge
- Metal wool for cleaning
- Rubberized base for stability

73584CF: Highly active non-corrosive and non-conductive flux with excellent wetting action

Part No.	Description	1	10	50
156777CF	Tip cleaner & stand	$4.95	$4.49	$4.05
160004CF	Metal wool replacement	2.79	2.49	2.29
73584CF	Rosin paste flux (2 oz.)	1.79	1.65	1.45

Desoldering Wick

No more burnt fingers



- Handy dispenser • Length: 5'
- Pure copper braid
- No clean flux formula

Part No.	Description	1	10	25
175986CF	0.067"W braid	$2.79	$2.49	$2.25

Clip-On Heat Sink



- Absorbs and dissipates heat during soldering and desoldering sensitive parts
- Size: 2.7"L x 0.7"W

Part No.	Mfr. Cross Ref. No.	1	10	25
159126CF	HT156	$2.49	$2.25	$1.99

Heat Sink and 7-Piece Soldering Aid Kit



100503CF 100378CF

100378CF: Heat sink absorbs and dissipates heat during soldering & desoldering of sensitive parts
100503CF contains: Soldering wick, 3 pc. scraper set, acid brush, clip-on heat sink and empty squirt bottle

Part No.	Description	1	10	50
100378CF	Heat sink	$.85	$.74	$.59
100503CF	Soldering kit	4.95	4.49	3.95

Plastic Pump Bottle



- 6 oz. bottle
- ESD compliant
- Plastic bottle with dispenser cover

Part No.	Description	1	10	50
158131CF	Pump bottle	$9.95	$8.95	$7.95

300-Watt Solder Pot

Temperature Regulated between 420 – 450˚C



- HI/LO switch selectable for temperature
- 2 conductor power cord: 5' 9" long
- Holds up to 1 bar of P/N 170464CF or 176057CF, below
- Input voltage: 110VAC @ 2.7A; 50-60Hz
- Size: (unit) 4.8"H x 5.5" Dia. (base)
- Size: (tub) 2.4"Dia. x 1.6"D
- Weight: 5.9 lbs. • One-year warranty

Part No.	Description	1	10	25
160303CF	300W solder pot	$64.95	$58.49	$52.65

600-Watt Solder Pot

Temperature Adjustable



- 2-wire power cord (5'5")
- Temperature: 0˚C to 500˚C
- Self regulating temperature
- On-off power switch and LED indicator for heat
- Input voltage: 110VAC @ 5.5A
- Holds up to 3 bars of P/N 170464CF or 176057CF, below
- Size (unit): 6.8"L x 5.5"W x 2.8"H
- Size (tub): 3.9"L x 1.6"D • Weight: 7.4 lbs.

Includes: Skimmer and removable dross tray

Part No.	Description	1	10
172275CF	600W solder pot	$189.95	$159.95

2000-Watt Solder Pot



- Thermostat control for setting temperature from 50°C to 300°C
- Holds up to 48 bars of P/N 170464CF or 176057CF, below
- Input voltage: 110VAC @ 18A 50-60Hz single phase
- 3 conductor pigtail power cord: 5' long
- Size (unit): 18.1"L X 11.5"W X 6.0"H
- Size (tub): 12.0"L X 8.0"W X 2.9"H
- Weight: 23.1 lbs. • One-year warranty

Part No.	Description	1	5
149876CF	2000 watt solder pot	$399.95	$359.95

Solder Bars



- Used for soldering pots
- Tin/lead: 60/40 & 63/37
- Size: 13"L x 0.9"Dia.

170464CF

Part No.	Description	Wt. (lbs.)	1	10	25
176057CF	60/40	1.1	$8.49	$7.65	$6.89
170464CF	63/37	1.8	6.95	6.60	6.25

Solder Spool Stand

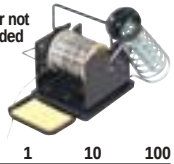


Solder not included

- 12 pc. solder spool stand (some assembly required)
- Size: 3.6"W x 3.9"D x 4.3"H
- Shaft dia.: 0.6" • Weight: 1.6 lbs.

Part No.	Description	1	10	100
141760CF	Solder spool stand	$8.95	$7.95	$6.95

Solder Spool and Iron Stand



Solder not included

- 4 pc. spool stand (some assembly required)
- Shaft diameter: 0.6"
- Size: 6"L x 3.5"W x 3.1"H
- Sponge size: 1.6"W x 2.4"L
- Weight: 2.0 lbs.

Part No.	Description	1	10	100
169551CF	Spool & iron stand	$16.95	$15.29	$13.75

Clamp Vise



- Lightweight, sturdy construction
- No tools needed – finger turn to tighten
- Ball cup allows vise to adjust to any angle
- Nylon jaws open 2" • Size: 10.0"L x 2.5"W

Part No.	Description	Wt. (lbs.)	1	10
127167CF	Clamp vise	2.1	$19.95	$17.95

PANAVISE Vacuum Vise



- Features the patented "split ball" that tilts, turns and rotates through three planes
- Nylon jaws open a full 2.25"
- Powerful suction pad for quick and easy set-up
- Size: 5.0"L x 4.0"W x 6.3"H
- Weight: 3.3 lbs. • One-year warranty

Part No.	Product No.	Description	1	10
27131CF	M381	Vacuum vise	$59.95	$53.99

PANAVISE Electronic Work Center



- Circuit board holder, standard base, tray base mount, solder station, sponges and wire holder included
- Size: 8.5"W x 7.8"H
- Weight: 5.3 lbs.
- One-year warranty

Part No.	Description	1	5	10
27060CF	Electronic center	$74.95	$71.25	$66.95

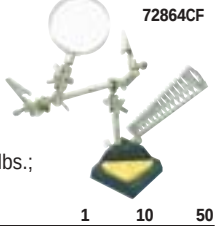
PANAVISE PVJr. Vice



- Jaw opening: 2.8"
- Jaw size: 1" wide x 2" long
- Jaw heat tolerance: 350˚F
- Vertical/horizontal jaw grooves
- Fine/course adjusting knob
- The vise neck tilts, turns and rotates
- Vise height: 6.8"
- Base bolt is 4.3" and fits all PanaVise base mounts
- Weight: 1.4 lbs. • One-year warranty

Part No.	Description	1	10
134439CF	Jr. vice w/ mountable base	$19.95	$18.95

Third Hand



72864CF

- Frees hands for soldering
- Two adjustable arms with alligator clip jaws
- 2" diameter magnifying lens
- Quick and easy rotation
- Sturdy, heavy base
- Weight: P/N 26690CF: 0.7 lbs.; P/N 72864CF: 1.4 lbs.

Part No.	Description	1	10	50
26690CF	Third hand	$5.95	$5.35	$4.79
72864CF	W/ soldering holder	7.95	7.19	6.49



See page 113 for Prototyping PC Boards and Accessories.

Protective Coiled Grounding Wrist Strap



- Comfortable, adjustable Velcro wrist strap
- The coiled cord has banana plug and alligator clips
- Extended cord: 9' long
- Color: black

Includes: 1MΩ resistor for added safety

Part No.	Description	1	10	100
34551CF	Anti-static strap (was $6.95)	$6.49	$5.85	$5.29

Anti-Static Heel Strap



- Discharges static without restricting your mobility
- Ideal for anyone handling static sensitive devices
- Ground strap: 15.5"L

Part No.	Description	1	10	100
100327CF	Heel strap (was $6.95)	$5.49	$4.99	$4.55

Anti-Static Work Mats

Make your work environment safe from static discharge! These mats are made of attractive semi-conductive vinyl that provide adequate discharging, yet will not short leads or pins.



168508CF

Part No.	Dimensions	Wt. (lbs.)	1	10	100
10575CF	11.3" x 22"	0.7	$8.95	$7.95	$6.95
10583CF	19.5" x 23.5"	1.1	13.95	12.59	11.35
168508CF	24" x 28"	1.8	18.95	17.09	15.35

Conductive Anti-Static Foam and Bags

Don't get zapped!

Protect your investment with these inexpensive bags and ensure a safe work area with our conductive anti-static foam.



13864CF



78668CF

- For safe storage of static sensitive devices

13864CF: 24.0"L x 12.0"W x 0.25"H

Part No.	Description	1	10	100
13864CF	Anti-static foam	$7.95	$6.95	$6.15
78668CF	4" x 6" anti-static bags (was $.29)	.14	.13	.12
78650CF	8" x 10" anti-static bags	.69	.62	.55

Anti-Static Plastic DIP IC Storage Tubes and Rubber Rail Stops

29516CF: Thin tube (rail) fits 8, 14, 16, 18, 20 and 22-pin integrated circuits. • Length: 23.75"
29524CF: Wide tube (rail) fits 24, 28, 32, 40 and 48-pin integrated circuits. • Length: 20"
29583CF: Rubber stops used to plug plastic rail ends

ICs not included



29524CF



29583CF

✳ **Prepackaged: order in increments of 10 or 100**

Part No.	Mfr. Cross Ref.	Description	1	10	100
29516CF	RIC20	Thin rail	$.49	$.44	$.39
29524CF	RIC220	Wide rail	.29	.25	.15
29583CF	RRS	Rubber stop ✳		.07	.06

Soldering

Professional Electronic Technician Tool Kits for Every Situation!

25-Piece Field Repair Tool Kit

Two-in-one design allows user to carry a tool case and a briefcase in one. Features a separate case for tools that attaches to the briefcase with zippers.



- In addition to the tools listed in the matrix below, the kit includes:
  - 5" snipe nose pliers
  - Alignment driver
- Size: 14.2"W x 11.0"D x 4.7"H • Weight: 6.6 lbs.

Part No.	Description	1	5
218211CF	Master electronic tool kit	$66.95	$58.95

28-Piece Cellular Phone Services Tool Kit

This kit is perfect for mobile phone repair.



- In addition to the tools listed in the matrix below, the kit includes:
  - 4" micro cutting pliers
  - 5" snipe nose pliers
  - Hot air tip
  - Self igniting micro torch
  - S-needle tip
- Size: 11.9"L x 9.8"W x 1.9"H • Weight: 3.2 lbs.

Part No.	Description	1	5
218202CF	Cellular phone tool kit	$66.95	$59.95

51-Piece Tech Tool Kit

Essential Kit for Electronic Machine Maintenance and Repair Jobs!



- In addition to the tools listed in the matrix below, the kit includes:
  - 2 nut drivers
  - Solder pen
- Case features removable pallets, a combination lock and a cushioned black plastic handle
- Size: 12.5"L x 17.5"W x 3.5"H • Weight: 10.4 lbs.

Part No.	Description	1	5
26681CF	51-piece tool kit	$99.95	$89.95

27-Piece Technician's Tool Kit

All the essential technician's tools in a durable canvas carrying case.



- In addition to the tools listed in the matrix below, the kit includes:
  - 5" precision range side cutting pliers
  - 5.3" precision range long nose pliers
  - Solder wick
  - Alignment driver
  - Nut screwdriver (1/4")
- Size: 16.2"W x 13.0"D x 3.0"H • Weight: 7.1 lbs.

Part No.	Description	1	5
218229CF	Technician's tool kit	$115.95	$104.95

55-Piece Tech Tool Kit

An assortment of tools for general & precision work for technicians, engineers, students, etc.



- In addition to the tools listed in the matrix below, the kit includes:
  - Screwdriver handle
  - 6-piece mini-hammer set
  - 5 piece of double edge blade
  - PLCC extraction tool
- Carrying case has outer velcro pockets to store paperwork, etc.
- Complete your assortment with a multimeter (See pages 149-155)
- Size: 17.6"L x 12.8"W x 4.0"H • Weight: 9.2 lbs.

Part No.	Description	1	5
136311CF	55-piece tool kit	$129.95	$116.95

57-Pc. Master Electronics Tool Kit

Simply every tool needed for field repair or installation. All in a handsome lockable case, with room for spare parts or special equipment.



- In addition to the tools listed in the matrix below, the kit includes:
  - 5" & 6" side cutter
  - 5" & 6" long nose pliers
  - 8" combination pliers
  - 9.5" water pump pliers
  - Testing driver
  - Alignment driver
  - Solder wick
  - Parts tube
  - PVC insulated tape
  - 5-piece file set – Oil can
  - 6" stainless scissors – Carpenter hammer
- Carrying case has two removable pallets, adjustable compartments, and combination locks
- Size: 18.0"W x 13.0"D x 4.0"H • Weight: 16.0 lbs.

Part No.	Description	1	5
218245CF	Master electronic tool kit ...	$131.95	$117.95

66-Piece Tech Tool Kit

Kit for Field Technicians and Engineers!



- In addition to the tools listed in the matrix left, the kit includes:
  - Computer/polarity circuit tester
  - Mini vacuum cleaner
  - Cassette head cleaning fluid
  - Keyboard/monitor spray cleaner
  - Long nose pliers with cutter – Hobby vice
- Aluminum case features removable pallets, surface-type locks, a black plastic handle, side buckles and a strap.
- Size: 18.0"L x 14.0"W x 6.0"H • Weight: 15.5 lbs.

Part No.	Description	1	5
105646CF	66-piece tool kit	$185.95	$167.39

69-Piece Tech Service Tool Kit



- In addition to the tools listed in the matrix left, the kit includes:
  - 40-pc socket pack
  - 6" side cutter
  - 6" long nose plier
  - 6" slip joint plier
  - carpenter hammer
  - 3 piece trimmer set
  - stainless steel spring hook – solder wick
  - 8" combination plier – 2 removable pallets
- Size: 18.5"L x 13.8"W x 6.7"H • Weight: 22.8 lbs.

Part No.	Description	1	5
149024CF	69-piece tool kit	$279.95	$251.99

Quick-Reference of Professional Tool Kit Contents

Parts included in kits	218211CF	218229CF	218202CF	26681CF	136311CF	218245CF	105646CF	149024CF
3-prong holder					1	1	1	1
Anti-static strap					1		1	1
Brush		1		1	1	1	1	1
Crimping tool		1 (7-way)			1 (7-way)	1	1	1 (5-way)
Desoldering pump	1	1		1	1	1	1	1
Digital Multimeter		1		1			1	
Drill set							1	1
Files, needle		2-pc		2-pc				
Flashlight		1			1	1	1	1
Forceps								1
Heat sink					1	1		1
IC extractor	1	1			1	1	1	1
Inspection mirror						1		1
Measuring tape, 10-foot	1			1		1		1
Pliers, 8" lineman	1 (6")				1		1	
Pliers, bent needle nose				1	1	1	1	1
Pliers, diagonal cutter	1			1	1			1
Pliers, flat nose				1	1		1	1
Pliers, needle nose								
Pliers, snipe nose			1					1
Scissors				1		1	1	
Screwdriver set	6-pc	7-pc	12-pc	8-pc	3-pc	8-pc	11-pc	40-pc
Screwdrivers, precision			2-pc	6-pc	6-pc	6-pc	6-pc	6-pc
Solder core	1	1	1		1	1	1	1
Soldering aid kit, 3-pc			1 (6-pc)	1	1	1	1	1
Soldering iron	1 (30W)	1 (30W)		1	1 (30W)	1 (30W)	1 (30W)	1 (25W)
Soldering stand		1		1		1	1	
Tape, electrician		1					1	
Tweezers	1	1	1	1	2	1	1	1
Utility components box		1		1		1	1	1
Utility knife	2-in-1	1		1	1	1	1	
Wire stripper								1
Wrench, adjustable	1	1			1	1	1	1
Wrench, hex key	7-pc	7-pc		7-pc	7-pc	7-pc	7-pc	7-pc
Wrench set						6-pc	10-pc	10-pc
Total Pieces	**25**	**27**	**28**	**51**	**55**	**57**	**66**	**69**
Price	**$66.95**	**$115.95**	**$66.95**	**$99.95**	**$129.95**	**$131.95**	**$185.95**	**$279.95**

Economy Tool Kits for Every Budget!

8-Piece Compact Tool Kit

The perfect size and tools for quick repairs.



- 5" side cutter
- 5" long nose pliers
- PRO-SOFT 3 x 75mm slotted screwdriver
- PRO-SOFT #0 x 75mm Phillips screwdriver
- Stainless tweezers
- Solder core • Desoldering pump
- Portable gas soldering iron with torch tip
- Size: 8.1"L x 5.7"W x 1.4"H • Weight: 1.2 lbs.

Part No.	Description	1	5
218181CF	8-piece compact tool kit	$21.95	$19.95

10-Piece Electronic Tool Kit

Ideal for repairing electronic devices and perfect for the electronic enthusiast.



- #0 Phillips and 3mm slotted screwdrivers
- Precision Phillips and slotted screwdrivers
- Stainless steel tweezers
- Flat and round needle files • Utility knife
- 5" side cutter and long-nose pliers
- Size: 7.7"L x 3.7"W x 1.3"H • Weight: 0.8 lbs.

Part No.	Description	1	5
226077CF	10-piece electronic tool kit	$14.95	$14.19

11 & 12-Piece Lightweight Computer-Service Tool Kits

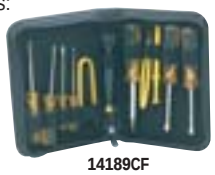


- Both kits include:
  – 2 nut drivers: 3/16", 1/4"
  – 3-claw parts holder
  – 1-pc hex key wrench
  – IC extractor
  – 4-pc screwdriver set
  – Tweezers

167206CF: 11-Piece Tool Kit

167206CF

- In addition this kit includes: Clear components, tube holder
- Size: 8.5"L x 5.9"W x 1.3"H
- Weight: 1.1 lbs.



14189CF: 12-Piece Tool Kit

14189CF

- In addition this kit includes: 14-16 pin IC inserter/straightener
- Size: 9.0"L x 5.8"W x 1.3"H • Weight: 1.2 lbs.

Part No.	Description	1	10	25
167206CF	11-piece tool kit	$12.95	$11.49	$9.95
14189CF	12-piece tool kit	14.95	13.49	11.95

20-Piece SAE Computer Tool Kit



- The kit includes:
  – 1-pc hex key wrench
  – 30W soldering iron
  – Adjustable wrench
  – Needle nose plier
  – 6-pc screwdriver set
  – 6' solder – Tweezers
  – 8" wire cutter/stripper
  – Clamping tweezers
  – 3-pronged parts retriever
  – Spare parts tube – IC extractor
  – Flashlight with battery – Heavy duty molded case
  – 2 nut drivers (1/4" & 3/16")
- Size: 11.9"L x 9.2"W x 2.0"H • Weight: 3.5 lbs.

Part No.	Description	1	10	100
170966CF	Computer tool kit	$28.95	$25.95	$22.95

24-Piece PC Premium Tool Kit



- 3.2mm x 75mm slotted screwdriver
- #0 x 75mm Phillips screwdriver
- 3 prong holder
- Spring tweezer
- Spare parts tube
- IC extractor • Torch
- Extension bar for ratchet bits
- Adjustable ratchet screwdriver
- Side cutter pliers • Long nose pliers
- 5mm and 7mm slotted bit
- #1 and #2 Phillips bit
- T10, T15, T20, T25, and T30 Torx bit
- 1/4" and 3/16" nut • Socket adapter
- Size: 8.4"L x 5.9"W x 1.4"H • Weight: 1.3 lbs.

Part No.	Description	1	5
226085CF	24-piece premium tool kit.....	$19.95	$18.95

26-Piece SAE Hobby Tool Set



- 4-1/2" long nose pliers
- 4-1/2" diagonal cutting pliers
- #1 & #2 Phillips bits
- #1 & #2 pozi bits
- 3/16" & 1/4" slotted bits
- Hex to 1/4" driver adapter
- T-10, T-15, and T-20 Torx bits • Tweezers
- Driver handle • Compact carrying case
- 3" extension bar for 1/4" drive
- 3 slotted and 3 screw driver precision set
- 3/16", 1/4", 11/32" and 3/8" sockets for 1/4" drive
- Size: 12.0"L x 9.0"W x 2.0"H • Weight: 1.5 lbs.

Part No.	Description	1	10	25
170069CF	26-pc. SAE tool set ..	$14.95	$12.95	$10.95

26-Piece Metric Hobby Tool Set



- 6 screwdrivers: Phillips #0, #1, slotted 0.05", 0.08", 0.09", 0.12"
- 10 bits: 5mm, 6mm, #No.1, #No.2, No.1, No.2, T-10, T-15, T-20, socket adapter
- Stainless steel tweezers • Sockets: 5, 6, 8, 10mm
- Extension bar • Handle • 4" side cutter
- 4" long nose pliers • Plastic carrying case
- Size: 6.4"L x 4.1"W x 2.0"H • Weight: 1.2 lbs.

Part No.	Description	1	10	25
99629CF	26-piece tool set	$9.95	$9.45	$8.95

40-Piece Electronic Tech Tool Kit



- The kit includes:
  – Wire cutters/stripper
  – Adapter bit for sockets
  – Pocket clip screwdriver
  – Potentiometer alignment tools
  – T10-T25 reversible Torx screwdriver bits
  – 3/16"-1/2" S.A.E. nut driver sockets
  – 6mm-12mm metric nut driver sockets
  – Slotted and Phillips screwdriver bits
  – 10-pc screwdriver set
  – Extra long 3-claw parts holder
  – IC inserter w/ pin straightener – IC extractor
- Size: 9.5"L x 6.8"W x 1.4"H • Weight: 1.7 lbs.

Part No.	Description	1	10	25
119183CF	40-piece tool kit	$19.95	$17.95	$15.95

Professional Tool Case



- Aluminum framed
- Padded interior and adjustable dividers (6 sections)
- Detachable tool organizer for easy access
- Color: black with aluminum trimmings
- Size: 18"L x 13"W x 6"H
- Weight: 8.1 lbs.

Part No.	Description	1	10
149016CF	Professional tool case	$37.95	$33.95

17-Piece Offset Ratchet and Socket Driver Set



This offset ratchet and socket driver set includes 6 hexagon sockets made from quality hardened carbon steel. The handle features a 1/4" male head drive to accommodate the accompanying bits and sockets.

- Slotted bits: 4, 5 and 6mm
- Phillips bits: #1 and #2 • Pozi bits: #1 and #2
- Torx bits: T10, T15 and T20
- Hex sockets: 3/16", 7/32", 1/4", 5/16", 11/32" & 3/8"
- Reversible driver handle with 1/4" male head

Part No.	Description	1	5
226069CF	Offset ratchet & socket	$7.49	$7.19

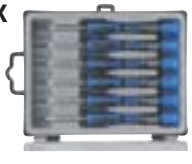
29-Piece 1/4" Driver Socket Wrench Set



- Flank driver socket (6 pt): 4, 4.5, 5, 5.5, 6, 7, 8, 9, 10, 11, 12 and 13mm
- Slotted bit: 4, 5.5 and 7mm
- Hex bit: 3, 4, 5, 6 and 8mm
- Phillips bits: #1 and #2 • Pozi bits: #1 and #2
- 2" extension bar • Sliding T bar
- Universal joint • Extension bar with spinner handle
- Pear-type ratchet handle with quick release
- Size: 8.7"L x 4.3"W x 1.6"H • Weight: 1.8 lbs.

Part No.	Description	1	5
226229CF	1/4" driver socket	$29.95	$28.49

6-Pc Precision Torx Screwdriver Set



- T5 and T6 x 50mm Torx screwdriver
- T7, T8, T9, T19 x 50mm Torx hex screwdriver

Part No.	Description	1	5
226106CF	Precision TORX screwdriver	$12.95	$12.29

11-Pc Precision Screwdriver Set



- 0.9, 1.2, 1.4, 1.8, 2.4 and 3mm slotted screwdrivers
- Phillips #00, #0 and #1 screwdriver
- Awl
- Magnetic pick-up

Part No.	Description	1	5
226093CF	Precision screwdriver	$4.49	$4.29

Tools

Ballpoint Allen Hex Socket-Type Screwdriver Set

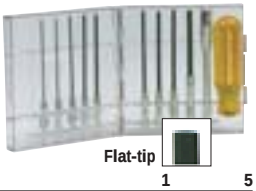


- Unique ballpoint tip ideal for tightening and removing Allen socket screws in hard-to-reach spots
- Will engage screw-heads from any angle
- Ends are precision-machined to close tolerances to help slip easily into sockets and hold securely without reaming
- Clear plastic case

Kit includes: 99X5 extension, 991 handle, 9 pcs of 4" long blades (.05, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16)

Part No.	Description	1	5
217859CF	11-piece screwdriver set	$64.95	$61.79

Flat-Tip Allen Hex Socket-Type Screwdriver Set



- Inch sizes
- Clear plastic case

Kit includes: Regular handle, extension bar, .05, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16 blades

Part No.	Description	1	5
217912CF	11-piece screwdriver set	$43.95	$40.95

Xcelite 9-Piece Screwdriver Set



- Handles more jobs with fewer tools, saves bench space and lightens service kits
- Equipped with remarkable black, "piggyback" torque amplifier handle • Inch sizes
- Color coded handles • Clear plastic case

Kit includes: Green 3/32", red 1/8", black 5/32", orange 3/16", amber 1/4", blue #0 Phillips, brown #1 Phillips, amber #2 Phillips, and black torque amplifier handle

Part No.	Product No.	Description	1	10
218069CF	PS88	9-piece set	$27.95	$26.29

6-Pc Long-Neck Screwdriver Set



- Three slotted: 0.09"Dia. x 6.6"L 0.12"Dia. x 6.6"L 0.16"Dia. x 9.6"L
- Three Phillips: No.0, 0.12"Dia. x 6.64"L; No.1, 0.16"Dia. x 9.61"L; No.2, 0.09"Dia. x 6.65"L

Part No.	Description	1	10	50
99451CF	6-pc. screwdriver set	$7.95	$6.95	$6.25

6-Pc Precision Screwdriver Sets



34041CF includes: 3/64", 1/16", 5/64", 5/32", 1/8" and 9/64" slotted screwdrivers

34059CF includes: 3/64"#0, 1/16"#0, 5/64"#0, 3/32"#0, 1/8"#1 and 9/64"#1 Phillips screwdrivers

Part No.	Description	1	10	50
34041CF	Slotted screwdriver set	$3.95	$3.49	$2.95
34059CF	Phillips screwdriver set	3.95	3.49	2.95

Flexible Ratchet Driver Set

With the mini-ratcheting handle and 7.5" flexible shaft, you can loosen or tighten those hard-to-reach screws.



Includes: Flexible shaft (190mm), mini ratchet handle that has forward, reverse and conventional settings, slotted bits (4mm, 5mm & 6mm), Phillips (#1 & #2 bits), Pozi (#1 & #2 bits), and TORX (10, 15 & 20mm bits)

Part No.	Description	1	5
223802CF	Ratchet drivers set	$7.95	$7.39

6-Piece Screwdriver & Pliers Set



- One micro cutting nipper
- One micro flat nose pliers
- 2 long-neck slotted: 0.12"Dia. x 9.61"L; 0.09"Dia. x 7.64"L • 2 long-neck Phillips: No.0, 0.12"Dia. x 9.61"L; No.2, 0.09"Dia. x 7.64"L

Part No.	Description	1	10	50
99565CF	Screwdriver/pliers	$14.95	$13.49	$11.95

JAMECO Pocket Screwdriver

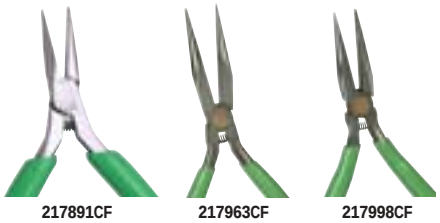


Phillips/Flat head

- Pocket screwdriver with Phillips and slotted
- Pen clip for pocket storage • Size: 6"L

Part No.	Description	1	10	100
127271CF	Pocket screwdriver	$1.55	$1.45	$1.19

Xcelite Needle Nose Pliers



217891CF (submini needle nose): Serrated jaws
- Positive gripping of fine wire or subminiature components
- Fine point allows use in confined areas

217963CF: Fine serrated jaws • General purpose
217998CF: Smooth jaws
- General purpose for pick-up and wire forming

Part No.	Prod. No.	Description	1	10
217891CF	L4	4" mini needle nose	$14.95	$13.69
217963CF	LN55	5.5" thin long nose	16.95	15.49
217998CF	LN54G	5" thin long nose	16.95	15.79

Xcelite 6-Piece Pliers Kit



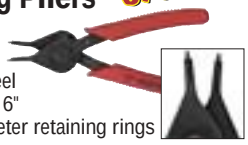
- A compact kit designed for an electronics technician or dedicated hobbyist
- Durable pocket-pouch with heavy-duty snaps
- Each professional quality tool features the unique Copaloy rivet for smoother action

Kit includes: 4.5" transverse end-cutting pliers, 4" diagonal-cutting pliers, 5" long-nose pliers with side cutters, 5" fine-tip needle nose pliers, 5" flat-nose pliers, and 5" long-nose pliers

Part No.	Prod. No.	Description	1	5
218051CF	C1K	6-piece pliers kit	$109.95	$103.89

Retaining Ring Pliers SALE

Internal/External



- Black oxide finish
- Hi-carbon tempered steel
- Vinyl grip • Length: 6"
- For 0.47" to 0.98" diameter retaining rings

Part No.	Description	1	10
177551CF	Retaining ring pliers	~~$11.95~~ $3.95	$3.59

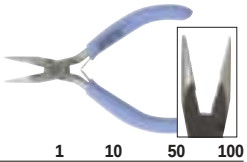
Linesman Pliers SALE



- Drop forged steel
- Heat treated
- Milled jaws
- Vinyl grips
- Polished head
- Length: 8" • Weight: 0.9 lbs.

Part No.	Description	1	10	50	100
177594CF	Linesman pliers	~~$5.95~~ $4.25	$3.85	$3.49	$3.15

Half-Round Long Nose Pliers



- Drop forged steel
- Heat treated
- Spring return action
- Vinyl grips
- Length: 4.5"
- Knurled jaws

Part No.	Description	1	10	50	100
177607CF	Half-round pliers	$4.95	$4.49	$3.95	$3.59

5.3" Flat and Half-Round Long Nose Pliers



- Stainless steel • Spring return
- Durable rubber handles
- 5.3" length w/ 1.4" plier nose

35473CF/35490CF: Knurl jaws
195531CF: Smooth jaws

Part No.	Description	1	10	50	100
35473CF	Flat long nose	$5.49	$4.99	$4.49	$3.49
195531CF	Flat long nose	4.95	4.49	3.95	3.49
35490CF	Half round	4.95	4.49	3.95	3.49

Precision 5-Piece Stainless Steel Pliers Set

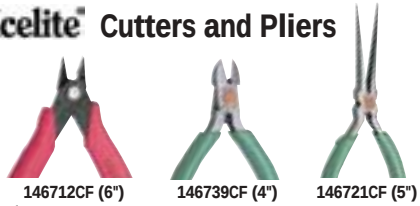


- Spring return • Insulated handles

Includes: One 3.5"L micro cutting nippers and one each 4"L micro round nose pliers, long nose pliers, flat nose pliers and bent nose pliers

Part No.	Description	Wt. (lbs.)	1	10	25
73120CF	5-piece set	0.6	$16.95	$14.95	$13.49

Xcelite Cutters and Pliers



- Spring returns

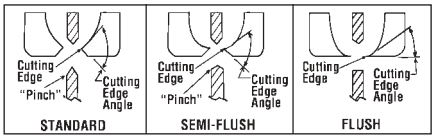
146712CF: Micro series wire cutter – flush; 6"
146739CF: Diag. wire cutter – semi-flush; 4"
146721CF: Long needle nose pliers – flat; 5"

Part No.	Product No.	1	10	50	100
146712CF	170M	$5.95	$5.35	$4.79	$4.29
146739CF	MS54V	13.95	12.95	11.95	10.95
146721CF	MN7776V	16.95	15.95	14.95	13.95

Xcelite Diagonal Cutters

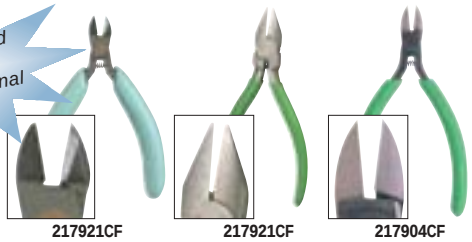
Manufactured from the finest forged alloy steel with polished head and cushion comfort handles, these cutters are designed for the demands of engineers and manufacturing environments.

- Flush or semi-flush cutting edge handles most cutting requirements
- Cutting edges machine ground and electronically hardened for extended life
- Forged alloy steel w/ polished head for high durability
- Patented COPALOY rivet construction provides smooth operation and long life
- Handle coil springs for fast cutting action
- ESD safe cushion grips for maximum comfort



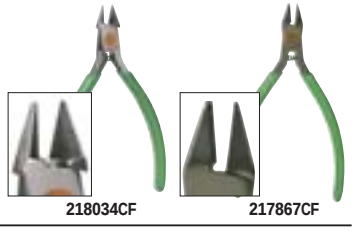
Choose the finished cut best for your projects

Expanded Xcelite Professional Tools



217904CF: Flush cutting of leads in restricted spaces; narrow tip gives increased clearance

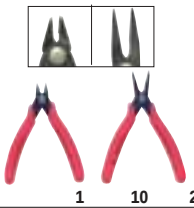
217955CF: Used for cutting component leads



Part No.	Product No.	Description	1	10
217921CF	MS54J	4" oval head-flush cut	$16.95	$15.49
217955CF	S475JS	4" relieved head-flush cut	15.95	14.85
217904CF	MS549J	4" tapered head-flush cut	15.95	15.19
217867CF	MS545J	4" slim line tapered head-flush cut	15.95	14.69
218034CF	MS545	4" slim line tapered semi-flush cut	15.95	14.85

Xcelite Shearcutter/Pliers Set

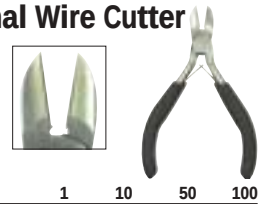
- Improved handle grip for control and comfort
- Non-glare black finish carbon steel
- Size (plier): 5.6"L
- Size (shearcutter): 5.2"L



Part No.	Prod. No.	Description	1	10	25
152055CF	S2K	Cutter/pliers set	$15.95	$14.95	$13.95

4" Diagonal Wire Cutter

- Drop forged steel
- Heat treated
- Vinyl grips
- Spring return action
- Polished head
- Length: 4"



Part No.	Description	1	10	50	100
179901CF	Wire cutter	$4.95	$4.49	$3.95	$3.59

4.3" Diagonal Wire Cutter

- Cuts component wire up to 1.2mm thick
- Stainless steel
- Durable rubber handles
- Jaws are designed for flush cutting
- 4.3"L x 2.1"W with 0.5" cutting blade



Part No.	Description	1	10	50	100
35481CF	Wire cutter	$5.59	$4.99	$4.55	$3.99

5" Diagonal Wire Cutter

- Cuts component wire up to 1.2mm thick and 0.08mm fine wire
- Insulated handles
- Jaws are designed for flush cutting
- 5.0"L x 1.8"W w/ 0.5" cutting blade



Part No.	Mfr. Cross Ref. No.	1	10	25
161411CF	Wire cutter	$6.95	$6.25	$5.59

Jameco's Low-Price Guarantee

We'll match the advertised price of any like product.

5" Wire Cutter/Stripper

20-24 AWG Stripper

- Strips and cuts 20-24 AWG wires
- Insulated grips
- Spring loaded for easy use
- Cutter angled @ 45 degrees for use in tight places
- Size: 5.0"L x 3.0"W



Part No.	Product No.	1	10	50	100
159273CF	HT1091	$4.95	$4.49	$3.95	$3.59

5" Wire Cutter/Strippers

- Insulated handles
- Spring return
- Tempered steel cutting edge
- Size: 5.0"L x 3.0"W
- One-year warranty



78991CF: 10-30 AWG (screw adjustable)
215888CF: 10-24 AWG (dial to adjust for wire gauge)

Part No.	Mfr. Cross Ref. No.	1	10	50	100
78991CF	HT108	$3.95	$3.49	$2.95	$2.59
215888CF	JE-2022C	3.95	3.49	2.95	2.59

6" Premium T5 & T6 Wire Strippers

- Contoured cushion-grip handles
- Wire size markings, in AWG and mm
- Size: 6.0"L x 2.0"W

161226CF: Premium T-5
- 10-18 AWG solid
- Color: yellow

161234CF: Premium T-6
- 16-26 AWG stranded
- Color: red

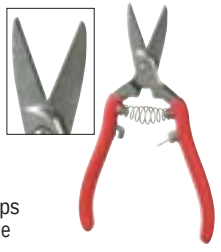
161218CF: Standard T-6
- 16-26 AWG stranded
- Color: red



Part No.	Prod. No.	Description	1	10
161226CF	ID45-215	T-5 10-18 AWG	$15.95	$14.49
161234CF	ID45-216	T-6 16-26 AWG	15.95	14.49
161218CF	ID45-121	T-6 16-26 AWG	13.95	12.95

Xcelite 6.5" Snip Tool

- Shearing action of 1.5" cut pointed blades prevent peaks on fine wires and filaments
- Useful for removing insulation and cutting light sheet metal
- Coil spring opens blades
- Safety latch
- Plastic coated cushion grips provide maximum leverage

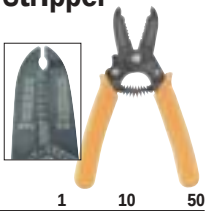


Part No.	Prod. No.	Description	1	10
218026CF	86CG	Snip tool	$29.95	$28.15

6.6" Wire Stripper

22-30 AWG

- Wire stripper, cutter, steel wire cutter, and wire loop
- Scale: AWG and mm
- Strips and cuts wires from 20-30 AWG
- Size: 6.6"L x 2.0"W



Part No.	Product No.	1	10	50
159290CF	HT5023	$8.95	$7.95	$6.95

7-in-1 Wire-Handling Tool

- Wire stripper, wire cutter, steel wire cutter, pliers and wire loop
- Solderless crimping tool
- Scale: mm and inch
- Size: 6.6"L x 3.0"W



Part No.	Prod. No.	Description	1	10	50
18796CF	HT104	10-18AWG	$4.95	$4.49	$3.95
127861CF	HT1042	16-26AWG	4.95	4.49	3.95
127870CF	HT1043	22-30AWG	4.95	4.49	3.95

Rotary Coax Cable Strippers

2 and 3 Blade

159118CF (3 Blade): 2 settings RG58/59/62
- For cable sizes 4-10mm
- Size: 4.2"L x 1.3"W
- Color: black



159185CF (2 Blade): 4 settings RG58/59/62/174
- For cable sizes 4-12mm
- Size: 3.9"L x 0.7"W • Color: gray



Includes: Hex key wrench for adjusting blade

Part No.	Product No.	1	10	25
159118CF	HT312B (3 blade)	$12.95	$11.49	$9.95
159185CF	HT332D (2 blade)	12.95	11.49	9.95

Automatic Wire Strippers

175097CF:
Strips 8-22 AWG wires
- Spring load grip
- Size: 7.0"L x 2.5"W
- Weight: 0.8 lbs.

Includes: Wire stopper for desired strip length

202841CF:
Strips 3-24 AWG wires
- Size: 6.5"L x 3.0"W
- Weight: 0.3 lbs.



Part No.	Description	1	10	25
175097CF	Auto wire stripper	$15.95	$14.39	$12.95
202841CF	Auto wire stripper	12.45	11.19	9.95

Crimp/Cut/Strip Tool

For RJ11 (6P) and RJ45 (8P) Modular Plugs



- Repeatable crimp action for consistent high-quality connections
- Push-down locking mechanism
- Size: 8.0"L x 2.0"W • Weight: 0.8 lbs.

Includes: Cut and strip blade

Part No.	Mfr. Cross Ref. No.	1	10
174684CF	TTK071	$34.95	$31.49

Telemaster Modular Connector Crimp/Cut/Strip Tool

For RJ11 (6P) and RJ45 (8P) Modular Plugs



- Repeatable crimp action for consistent high quality connectors
- Size: 6.0"L x 2.0"W
- Weight 0.8 lbs.

Includes: Cut and strip blade

Part No.	Prod. No.	Description	1	10
161091CF	ID30-496	Telemaster tool	$41.95	$37.95

Ratchet Crimp Tool

For RJ11 (6P) and RJ45 (8P) Modular Plugs



- Repeatable crimp action for consistent high-quality connections
- Size: 8.5"L x 2.2"W
- Weight: 1.2 lbs.

Includes: Cut and strip blade

Part No.	Mfr. Cross Ref. No.	1	10
174676CF	TTK070	$42.95	$38.95

Professional Modular Connector Crimping Tool



- Spring return action
- 6mm and 12mm stripping guide
- Crimp modular plugs without changing dies
- Crimps 10P10C, RJ45: 8P8C, RJ11 and RJ12: 6P6C, and 4P4C (Handset)
- Insulated handles • Size: 8.2"L • Weight: 1.2 lbs.

Part No.	Product No.	1	10	25
181147CF	HT200	$57.95	$53.95	$48.95

Modular Connector Crimping Tool Set



- 8" metal modular crimping tool
- Cuts, strips and crimps
- Crimps RJ11 and RJ45 plugs
- Carrying case: blue hard plastic, 8.0"L x 10.5"W x 2.0"H
- Weight: 2.1 lbs.

Includes: 90 modular plugs, 40 pcs. 4P4C, 30 pcs. 6P6C, 20 pcs. 8P8C

Part No.	Product No.	1	10	25
73496CF	HT2000B	$79.95	$69.95	$62.95

See page 130 for Molex Hand Crimp Tool.

3-Piece Open-End Ratcheting Wrench Sets



The most useful development in open-end wrenches in 40 years. Most open-ended wrenches need a pivot angle of 60˚ to reinsert the wrench to make the next movement. The Alden Wrench needs only 30˚, and with the built-in ratchet, you need not even remove the wrench from the head of the bolt or nut. Coupled with their small head sizes and ratcheting action, you can loosen or tighten a bolt faster and in tighter spaces than any standard combo wrench. It is made of stainless steel alloy widely used in aerospace and is individually hand polished.



223896CF

- Weight: 0.6 lbs.

223896CF: SAE 3/8-7/8, 1/2-9/16, 5/8-11/16
223909CF: Metric 10-12, 13-14, 15-17

Part No.	Description	Price
223896CF	SAE	$34.95
223909CF	Metric	34.95

33-Piece Ratchet Driver Set



High torque reversible ratchet handle with forward, reverse, and conventional settings. Magnetic shaft holds steel screws to bit for easy positioning. Bits can easily be stored in handle for easy transport.

- Torx bits: T6, T7, T8, T9, T10, T15 and T20
- Nut bits: 3/16", 1/4", 9/32", 5/16", 11/32" and 7/16"
- Hex bits: 1.5, 2.0, 2.5, 3, 4, 5, 6 and 8mm
- Pozi bits: #0, #1, #2 • Phillips bits: #0, #1, #2
- Slotted bits: 3, 4.7 and 6.3mm • 50mm adapter
- Size: 9.1"W x 2.0"D x 7.6"H • Weight: 1.7 lbs.

Part No.	Description	1	5
226051CF	33-piece ratchet driver set	$19.95	$18.95

Metal Modular Connector Crimping Tool



- Cable stripper and wire cutter
- Size: 8.0"L
- Weight: 1.8 lbs.
- Crimps 6P and 8P plugs (6P2C, 6P4C, 6P6C, 8P2C, 8P4C, 8P6C, 8P8C)

Part No.	Description	1	10	25
114526CF	RJ11/RJ45	$21.95	$19.79	$17.79

Ratcheted Modular Connector Crimping Tool



- Insulated grip
- Ratcheted type
- Metal • 7.5"L
- Crimps RJ45 (8P8C) and RJ11/12 (6P6C) • Weight: 0.7 lbs.

Part No.	Description	1	10	25
159311CF	RJ45/11/12	$21.95	$19.95	$17.95

Twin Wrench Driver Set



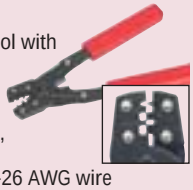
The handle of this twin wrench driver set has two tips, horizontal and vertical for those hard-to-reach areas.

- Non-slip double ended driver
- Three slotted bits: 4mm, 5mm, and 6mm
- Philips bits: #1 and #2 • Pozi bits: #1 and #2
- Torx bits: 10mm, 15mm, and 20mm

Part No.	Description	1	10
223811CF	Twin wrench driver set	$3.95	$3.59

Non-Insulated Terminal D-Sub Crimping Tool

14-26 AWG



- Heavy-duty metal crimping tool with cutter and insulated handles
- For computer pins and sockets, D-sub 26-28 AWG wire
- For butt-insulated connectors, 22-26 AWG wire
- For telephone spade lugs, 22-26 AWG wire
- For non-insulated connectors, 20-22 AWG wire
- For non-insulated connectors, 14-18 AWG wire
- Coiled spring return • Size: 7.3"L x 1.5"W

Part No.	Product No.	1	10	25	100
99442CF	HT202A	$8.95	$7.95	$6.95	$6.29

D-Sub Crimping Tool

20-28 AWG



- Crimps D-sub pins and sockets
- For use with P/Ns 43377CF, 43369CF, pg 133 and 100765CF, pg 138
- Size: 7.0"L x 4.0"W

Part No.	Product No.	1	10	25
159265CF	HT213	$9.95	$8.95	$7.95

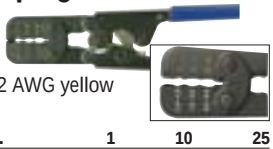
IDC Connector Crimping Tool



- Crimping distance: 27.5mm to 6mm (with attachment)
- Cushioned red handles
- Crimp insulation displacement connectors
- Use for IDC socket connectors, pg 139
- Size: 9.2"L x 3.0"W • Weight: 1.1 lbs.

Part No.	Product No.	1	10	25
73251CF	HT214	$14.95	$13.49	$12.15

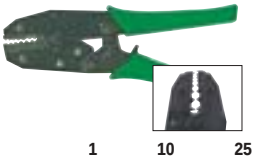
Solderless Terminal Crimping Tool



- Crimps solderless terminals: 18-22 AWG red, 14-16 AWG blue and 10-12 AWG yellow
- Size: 9.0"L x 2.0"W

Part No.	Product. No.	1	10	25
72995CF	HT303	$17.95	$15.95	$13.95

Ratcheted BNC Crimping Tool



- Crimps RG58, RG59, RG62, RG174 and fiber optic
- All steel construction
- Size: 8.5"L x 2.5"W
- Weight: 1.1 lbs.

Part No.	Product No.	1	10	25
114534CF	HT-3019	$22.95	$19.95	$17.95

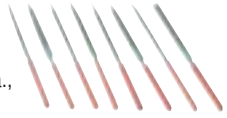
8-Piece Fold-Up Torx Key Set



- 3.7" long handle
- TORX bits: T9, T10, T15, T20, T25, T27, T30, T40
- Size: 3.7"L x 1.2"W

Part No.	Description	1	10	100
176006CF	TORX key set	$11.49	$10.35	$9.35

Steel File Sets



100360CF

- Strong tool steel

100360CF: 8-piece

- 5.65"L
- 1 ea. 0.15"Dia., 0.13"Dia., 0.12"Dia., 0.11"Dia. and four 0.22"Dia.

202833CF: 6-piece

- 5.5"L
- 1 ea. 0.12"Dia. (round), 0.11"W (triangle), 0.10"W (square), 0.20"W (half-round) and two 0.2"W (flat)

Part Number	Mfr Cross Ref. No.	Description	1	10
100360CF	FS108F	8-piece file set	$9.95	$8.95
202833CF	08110	6-piece file set	6.95	5.59

Impact Punch-Down Tool



175071CF

- Reversible clip-in blade
- Adjustable (HI-LO) spring-loaded impact mechanism
- Storage bin on handle for spare blade

175071CF: Punch-down tool with blade

- For 66-type terminals
- Size: 5.2"L x 1.5"W x 1.0"H



175089CF

175089CF: Punch-down blade

- Blade for 110-type terminals

Part No.	Description	1	10
175071CF	Tool w/ 66 blade	$39.95	$35.95
175089CF	Punch-down blade 110	14.95	13.49

Impact Punch-Down Tool

Conforms to AT&T performance specification. Reversible clip-in blade, adjustable spring-loaded impact mechanism and spare storage blade in the handle.



124142CF

124151CF

- One-year warranty

Paladin Tools®

124142CF: For 66-type bifurcated terminals

- Size: 7.0"L x 1.4"W x 1.1"H

124151CF: Blade for 110-type terminals

Part No.	Description	1	10
124142CF	Tool with blade	$49.95	$44.95
124151CF	#110 blade	19.95	17.95

Rivet Tool

Sets 3/32", 1/8", 5/32" and 3/16" rivets without adjustments. Simply change the appropriate nozzle, slip the rivet into the pre-drilled hole, and you have a perfect fasten. Spring-loaded handle for automatic ejection of the mandrel.



226114CF

Part No.	Description	1	5
226114CF	Rivet tool	$6.95	$6.69
226288CF	1/8" x 1/4" long rivet (100 pk)	2.19	1.99
226296CF	3/16" x 1/4" long rivet (100 pk)	3.49	3.29

4-Way Master Key Chuck Tool



- Opens a variety of chucks (P/N 172911 opens 86 types); (P/N 172929 opens 127 types)
- Opens most chucks from manufacturers such as Cooper, Milwaukee, Craftsman, Black and Decker, and Rohm

172911CF: • Chuck size: 1/4" to 3/8" • Wt.: 0.3 lbs.

172929CF: • Chuck size: 1/2" to 3/4" • Wt.: 0.6 lbs.

Part No.	Description	1	10	25
172911CF	Opens 86 chucks	$10.95	$9.85	$8.89
172929CF	Opens 127 chucks ~~$12.95~~	8.89	8.09	7.35

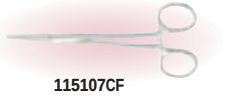
1/4 – 1/2 Watt Resistor Lead Forming Tool



- Watt size indicates appropriate package size
- Bends lead length in .05" increments
- Excellent for capacitors also
- 1/4W: 0.4"-1.5"; 1/2W: 0.5"-1.5"; 5.4"L x 1.5"W

Part No.	Description	1	10	50
106884CF	1/4-1/2W	$2.75	$2.39	$2.39

5" Steel Hemostats



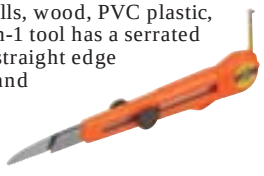
115107CF

- Grade 410 A.I.S.I. stainless steel
- Three locking positions
- Available with straight or curved tip

Part Number	Mfr. Cross Ref. No.	Description	1	10	50
115107CF	HEMO1	5" straight	$3.95	$3.49	$2.95
115115CF	HEMO2	5" curved	4.25	3.75	3.25

3-In-1 Tool Measuring Tape, Knife, and Saw

Cut through drywalls, wood, PVC plastic, and paper. This 3-in-1 tool has a serrated saw on one side, a straight edge blade on the other and a detachable 6' measuring tape.



- Length: 8.4"

Part No.	Description	1	10
218641CF	3-in-1 tool	$4.95	$4.49

Deluxe Precision Knife Set



- Three different knife handles – fine work, medium and heavy duty power grip
- Size: 6.3"L x 2.8"W x 1.4"H

Includes: 13 different types of blades

Part No.	Description	1	10	25
72768CF	13 blade knife set	$9.95	$8.95	$7.95

Glue Gun and Sticks



72696CF

- Adheres to PCBs, cardboard, wires, metal and cloth
- Silicon nozzle
- Electronic heating
- Trigger action
- Utilizes long gluesticks (100mm)
- Size: 7.3"L x 6.3"W • Weight: 0.8 lbs.

Part No.	Description	1	10	25
72696CF	Glue gun	$10.95	$9.95	$8.95
78633CF	Glue sticks (6/pk)	2.95	2.69	2.29
176292CF	Glue sticks (10/pk)	4.95	4.29	3.79

Steel Fish Tapes



Fishing wires inside finished walls or through conduit is not fun. But with our steel fish tapes, you won't have to spend all day finishing the job. Designed specifically to make the retrieval of wires quick and easy.

- Impact resistant yellow ABS case won't rust or dent
- Finger grips around reel to ensure easy control
- Trigger provides constant-pressure tension while retracting

Part No.	Length	1	10	25
217470CF	50'	$27.95	$25.95	$22.95
217488CF	100'	46.95	42.95	39.95
217496CF	200'	62.95	58.95	54.95

Magnetic Tip Measuring Tape



Measuring height or width with a regular tape measure is not easy, especially if you are working single-handed with metal materials. Typical end hooks will always slide out or will not hook properly. With this measuring tape, you can easily clamp on to metal surfaces with its magnetic hook and make precise height or width measurements.

- Magnetic end hook for convenient measuring and TRU ZERO function
- Blade with nylon coating for easy scale reading
- Anti slip and shockproof rubber case
- Heavy duty spring and blade system
- Tape measure length: 25'

Part No.	Description	1	10
215415CF	Magnetic tip tape measure	$13.85	$12.59

12-Piece Deluxe Hole Saw Kit



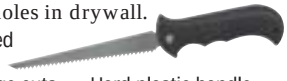
Cut smooth, accurate holes from 3/4" to 5" diameter in drywall, wood, plaster, aluminum, laminates, and plastic. With the 1/4" and 3/8" mandrels you can use it with any battery or electric drill.

- Hole saw diameters: 3/4", 7/8", 1⅛", 1¼", 1½", 1¾", 2", 2½", 3", 3½", 4", 5"
- 1/4" & 3/8" drive mandrels • Allen wrench
- Size: 8.0"L x 6.0"W x 1.9"H • Weight: 2.8 lbs.

Part No.	Description	1	10
211262CF	Hole saw kit	$18.95	$17.45

6" Drywall Saw

Ideal for cutting holes in drywall.

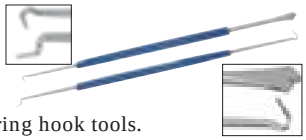


- Hardened tempered steel blade
- Sharp tip for plunge cuts • Hard plastic handle

Part No.	Description	Price
224004CF	6" drywall saw	$2.99

Spring-Hook Tools

Grab or place in position springs and wires in those hard-to-reach areas with these 8" long spring hook tools.



Part No.	Description	1	5
226042CF	Spring hooks	$5.95	$5.69

3X, 3-Bulb Adjustable Magnifying Lamp



Adjustable rectangular 3-diopter lens allows independent movement of the lens for best lighting and viewing angles. Three 9-watt compact fluorescent bulbs located to the side and top of the lens provide superior lighting to your workspace or job at hand. The integral spring-balance arm reduces the chance of pinched hands from springs, and provides a sleek clean look.

- 47" long arm
- 2 on/off buttons
- Color: beige
- UL listed

Part No.	Description	1	10	25
217517CF	Adj. magnifying lamp	$79.95	$74.95	$69.95

3X Rectangle Magnifying Lamp



3x diopter rectangular magnifying lens provides a large viewing angle and compact design. With its two 7-watt fluorescent lamps located to the side of the lens, it provides superior lighting for any job. Enclosed springs in the arms reduce the chance of pinched hands and make it easier to clean.

- 47" long arm
- Color: beige
- UL listed

Part No.	Description	1	10	25
217509CF	Magnifying lamp	$69.95	$64.95	$59.95

Tweezers with 8X Magnifier



The perfect combination hand tool for professionals working with small objects. Magnifying glass stays in perfect focus with tweezer heads.

- Stainless steel construction
- Precision tip tweezers
- 1.2" diameter 8 diopter lens
- Length: 3.8"

Part No.	Description	1	5
217824CF	Tweezer magnifier	$5.95	$5.39

Wide View 2X Foldable Magnifier



This folding 2X magnifier is very popular among professionals needing a large-view magnifier plus the convenience of portability. Made of high-quality plastic, the frame is light with a precision glass lens. Easy-to-read scales in inches (scale of 1/16") and millimeters are etched on the base.

- Size (unfolded): 6.1"W x 5.3"D x 6.5"H

Part No.	Description	1	10
218296CF	Foldable magnifier	$9.95	$8.95

3X Magnifier with Adjustable Stand



- Heavy duty steel base
- Size: 15"L (full stand) x 4"Dia.(base)

Part No.	Description	Wt. (lbs.)	1	10
148881CF	Magnifier	2.5	~~$14.29~~ $13.29	$11.99

3X Magnifying Lamps



- 45" extension arm
- Supplied with 22-watt circuline tube
- New wire clip design permits easy installation
- Extra strong, all-metal mounting base with electrical outlet
- Metal bulb holder for extra protection
- Power requirement: 110VAC/60Hz
- 3X magnification
- Weight: 7.3 lbs.

Part No.	Description	1	10	25
100829CF	Black lamp	~~$62.95~~ $59.95	$53.95	$49.95
149981CF	White lamp	~~$60.95~~ 59.95	53.95	49.95

Standard Adjustable 3X Magnifying Lamp



- 4" Diameter lens
- Maneuverable 30" arm extension
- Lamp tilts or turns in any direction
- Uses 60W incandescent bulb (not included)
- 3X magnification
- Power requirement: 110VAC/60Hz
- Weight: 2.9 lbs.

Part No.	Description	1	10	25
22710CF	Magnifying lamp	$29.95	$26.95	$23.95

Precision 5X Magnifying Lamp



The arm extends to 40", is adjustable to any direction or angle, and has a 5X magnifying glass with built-in light. This is the perfect tool to help identify small electronic components and magnify a printed circuit board to help solder electronic components.

- 5" diameter lens
- Weight: 7.1 lbs.
- Power requirement: 110VAC/60Hz

Includes: 22W circuline fluorescent bulb

Part No.	Description	1	10	25
197456CF	Magnifying lamp	$109.95	$98.95	$88.95

General Purpose Illuminated 3X Magnifier



- 75mm diameter lens
- Great for magnifying fine print
- Light requires 2 AA batteries, see below
- Size: 7.5"L x 3.75"Dia.

Part No.	Description	1	10	25
149542CF	Illuminated magnifier	$4.49	$3.95	$3.49
151087CF	1.5V AA battery (req. 2)	.22	.21	.20

Precision Micrometer

0"–1" Range ± .0001"



Forged steel frame precision micrometer is complete with chrome barrel and thimble for easy-to-read contrasting graduation. Hardened, precision-ground measuring surface with positive spindle lock holds measurements. Accurate to .0001". Quick and easy zero adjustment.

- Length: 5.4"
- Weight: 0.7 lbs.

Part No.	Description	1	10	25
169543CF	Precision micrometer	~~$17.95~~ $12.95	$11.69	$10.49

Super Bright, Super Reliable LED Flashlight



The perfect tool for individuals who really depend upon a flashlight that always works. Containing space-age solid-state circuitry, batteries last 14 times longer than conventional flashlights and function continuously up to one month. Its super bright white LEDs will last at least 11 years.

- Waterproof, designed for all weather conditions
- Shockproof, withstands a drop from 4'
- Low cost per hour of operation
- Industrial grade switch, rated for 10,000 operations
- Rubber over-molding

215677CF: One month continuous operation using three "D" cell batteries (P/N 215845CF, pg 212)

215685CF: 25-days continuous operation using three "C" cell batteries (P/N 198723CF, pg 212)

215693CF: 14-days continuous operation using three "AA" cell batteries (P/N 198707CF, pg 212)

Part No.	Prod. No.	LEDs	Length	1	10
215677CF	LW-4000	10	10.6"	$59.95	$53.95
215685CF	LW-3000	7	8.9"	49.95	45.95
215693CF	LW-2100	4	7.9"	34.95	31.49

Digital Display Calipers

Metric or Inches



- Hardened stainless steel
- Display: inches to 1/1000THS mm to 1/100THS
- Resolution: 0.01mm (0.0005")
- Instructions for making internal, external, depth and step measurements
- Calipers measure to 6 inches/150mm
- Weight: 0.8 lbs.
- One-year warranty

Includes: Fitted case and 1.5V silver oxide battery (replacement battery, P/N 140783CF, pg 212)

Part No.	Description	1	10	25
127482CF	Digital disp. calipers	$59.95	$53.95	$48.95

Metal Dial Calipers

Metric or Inches



116134CF

- For accurate measurements every time
- Measures outside, inside and depth
- Easy-to-read dial gauge
- Materials: metal
- Length: 6" (150mm)
- Color: silver
- Weight: 0.7 lbs.

Includes: Fitted plastic storage case

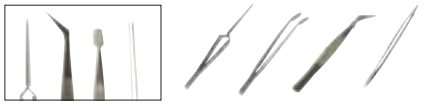
Part No.	Description (min. reading)	1	10	25
116134CF	Metric (.02 mm)	$27.95	$24.95	$22.49
116126CF	Inches (.001 inch)	27.95	24.95	22.49

See page 212 for Batteries.

Order Anytime 24x7x365

Phone 1-800-831-4242
Online www.Jameco.com
Fax 1-800-237-6948

4-Piece Steel Tweezer Set



- 4 styles of stainless steel tweezers, one self-locking
- Ideal for picking up small components in hard-to-reach places

Part No.	Description	1	10	50
10735CF	4-piece tweezer set	$7.95	$6.95	$5.95

Automatic Center-Punch Tool

Adjustable



- Precision instrument
- Alloy steel point
- Knurled steel body • Size: 5.0"L x 0.5"Dia.

Part No.	Description	1	10	50
160282CF	Center punch tool	$5.95	$5.39	$4.85

T-Handle Reamer Tool

Excellent for aluminum chassis work



- For enlarging starter holes on panel mount components from 1/8" to 1/2" diameter
- T-handle for easy rotation of tool
- Handle: 3.3" long, tool: 5.3" long

Part No.	Description	1	10	25
151749CF	T-handle reamer tool ~~$8.99~~	$7.95	$7.49	$6.95

Nibbling Tool


18809CF

- Perfect for cutting, trimming, or notching sheet metal up to 18 AWG
- Time-saver when working on prototyping, chassis, and circuit boards
- Minimum .375" hole required • Size: 7.8"L

Part No.	Prod. No.	Description	1	10	25
18809CF	HT204	Nibbling tool	$8.95	$7.95	$6.95
29330CF	HT204B	Replacement bit	4.95	4.49	3.95

Strip-Wrap-Unwrap Tool



- Tool tip made of tempered steel
- Use with 30 AWG wire on .025" square posts
- No solder necessary, see pg 125 for wire
- Spring steel cutter • 4.5" long
- Wrap 1 to 2 turns of insulated portion of wire for secure connections • Modified tool

Part No.	Product No.	1	10	25
34585CF	WSU30M	$49.99	$44.99	$39.99

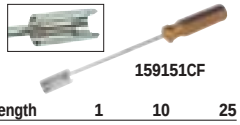
D-Sub Pin Insertion/Extraction Tool



- Insertion/extraction tool: red/white plastic body; exchangeable tips

Part No.	Description	1	10	100
19094CF	Insertion/ext. tool	$2.79	$2.49	$2.15

BNC Connector Removal Tools


159151CF

- For deep chassis removal
- Allows access to hard-to-reach places

Part No.	Product No.	Length	1	10	25
159151CF	HT2206	6"	$8.95	$8.09	$7.25
152047CF	HT2212	12"	14.95	13.49	11.95

32-Piece Security Bit Set

This security bit set contains most of the bits commonly used in today's electronic products to make them tamper resistant. Now you can open the cases of these products to repair them without damaging the case or screw.



- Torx bits: 4, 6, 8 & 10mm
- Tri-wing bits: #1, #2, #3 and #4
- Security hex bits: 2, 2.5, 3, 4, 5 and 6mm; 5/32", 9/64", 1/8", 7/64", 3/32" and 5/64"
- Security Torx bits: T8, T10, T15, T20, T25, T27, T30, T35 and T40 • 60mm magnetic bit extension

Part No.	Description	1	10
223829CF	60-piece tool kit	$11.95	$10.75

Xcelite Heavy-Duty Nut Driver Kit

This set of heavy-duty nut drivers are ideal for service/repair or manufacturing environments or anywhere you encounter small metric components.



- Metric • Red case
- 31.35mm shaft hole depth

Includes: 4 thru 8, 10, 11 & 13mm

Part No.	Description	1	5
218042CF	Nut driver kit	$59.95	$55.95

IC Pin Straightener

Straighten bent pins safely and easily with Jameco's IC pin straightener.



- Straightens 8/14/16/18/20/24/28/40/42-pin ICs
- Materials: black plastic • Size: 3.3"L x 1.5"W x 0.4"H

Includes: Ground terminal

Part No.	Description	1	10	100
99362CF	IC straightener	$7.35	$6.35	$5.75

Trimmer Potentiometer Adjustment Pocket Tool



- Glass-filled body
- Stainless steel blade
- Size: 5.2"L

Part No.	Description	1	10	100
153314CF	Trimmer tool	$1.19	$.99	$.89

Crimp Pin Extraction Tools


131887CF

- Easily extract 0.093" locking pins from connectors
- Heavy duty metal
- Precision design
- Length: 5"

Part No.	Prod. No.	Description	1	10
131887CF	HT319C	Male tool for 42729CF	$9.95	$8.95
131879CF	HT319B	Female tool for 42649CF	9.95	8.95

See the yellow and green highlighted items.

Jameco Special Value!

Details on page 3.

60-Piece Bit, 1/4" Socket and Driver Tool Kit

This compact kit contains the most popular bits and 1/4" sockets with a comfortable cushioned, reversible ratchet driver handle.



- Drill bits: 1/16", 3/32", 1/8", 5/32", 3/16"
- Socket bits: 3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8", 7/16", 1/2", 5mm, 6mm, 7mm, 8mm, 9mm,10mm, 11mm, 12mm, 13mm
- Phillips bits: #1, #2, #3 • Phillips Z bits: 1, 2, 3
- Slotted bits: 1/8", 5/32", 3/16", 1/4", 9/32"
- Hex bits: 5/64", 3/22", 1/8", 5/32", 3/16", 7/32", 1/4"
- Torque bits: T-10, T-15, T-20, T-25, T-30, T-40
- Square bits: 1, 2, 3 • 2.4" Magnetic bit adapter
- Reversible ratchet screwdriver
- 7.5" Flexible extension • Socket adapter
- 6" long nose pliers • 6" adjustable wrench
- Vinyl zipper case with organizer to find sizes fast
- Size: 8.5"L x 6.5"W x 2.2"H • Weight: 3.1 lbs.

Part No.	Description	1	5
218261CF	60-piece tool kit	$36.95	$32.95

High-Speed Steel Step Drills

Drill multiple holes in thin material with the same bit, faster and easier. Each bit does the work of many drill bit sizes. You can drill holes in most materials such as plastic, metal, and wood up to 1/8" thick. No center punching on most sizes.


172401CF

229657CF: • Shank size:3/8" • 2.4" long
172401CF: • Shank size:1/4" • 2.5" long

Part No.	Description	1	10	25
229657CF	3/16" – 7/8" 13-step	$14.95	$13.45	$12.10
172401CF	3/16" – 1/2" 6-step	9.95	8.95	7.95

9-Piece Assorted Drill Bit Kit

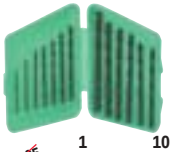


- Variety of sizes: .014" to .126"
- Each kit will vary in contents of bit sizes
- Shank diameter: .125"

Includes: Plastic case

Part No.	Description	1	10	50
131676CF	9-piece drill bit kit	$9.95	$8.95	$7.95

13-Piece Drill Bit Kit



- Sizes: 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 11/64", 3/16", 7/32", 15/64", 1/4"

Includes: Plastic case

Part No.	Description	1	10
202850CF	13-piece drill bit kit ~~$2.95~~	$2.29	$1.99

PC Board Drill Bits



- Reconditioned carbon steel bits
- High quality long lasting cutting edge
- Use for drilling holes in glass PC boards
- Shank diameter: .125"

Part No.	Drill Dia.	No.	Application	1	10	100
16619CF	.021"	75	Miscellaneous ~~$1.69~~	$1.39	$1.25	$1.15
16580CF	.040"	59	Plated thru holes ~~$1.95~~	1.39	1.25	1.15

SurePunch™ Series Punchdown Tools



Terminates and cuts telephone wire and data cable into 66 and 110 termination panels for insulation displacement (IDC) type bifurcated terminals.

- Cushion grip, molded to the shape of your hand, for comfort and a sure, non-slip hold
- Increased HI/LO impact force to meet demands of new cable types and gauges
- For 22-28 AWG solid or stranded wire
- Blades twist and lock into place
- New latch cover blade storage area in end of handle
- Length (with blade): 8.0" • One-year warranty

230391CF: 110/66 combo w/ reversible cut-only blade
230383CF: 110 reversible cut & punch/punch-only blade
230375CF: Both 110 & 66 reversible cut & punch/punch-only blades

Part No.	Product No.	1	10
230391CF	3571	$53.95	$48.55
230383CF	3572	53.95	48.55
230375CF	3579	61.95	55.75

SurePunch™ PRO Punchdown Tool

With 110/66 Combo Blade



New and improved design of Paladin's SurePunch™ series. The FIRST and ONLY punchdown tool to have a detachable light, making it easy to work in dark environments. Multi-purpose spudger in handle can be used as a screwdriver or IDC contact insertion tool. Also built into the handle is a hook to feed wires through holes and a pick to separate bonded twisted pair cables, strip insulation, and cut wires.

- Adjustable HI/LO spring compression for all types of cables
- Detachable light with long-life 2200mcd LED specially designed to focus the light on the panel work area
- Finger grips and non-slip rubber-embedded cushion handle for comfort • Length (tool only): 7.0"
- Blades twist and lock into place; accepts other manufacturers' twist and lock type blades
- 10-year warranty on blade; one-year on tools

Part No.	Product No.	1	10
230359CF	3588	$68.95	$61.95

Non-Impact 110 Punchdown Tool

Cut and Punch



Terminates and cuts telephone and data wire into 110 terminating panels. For insulation displacement (IDC) type bifurcated terminals.

- Non-impact, low-cost • 22-28 AWG
- Solid or stranded, single insulation wire
- Comfortable rubber grip handle • Length: 4.0"
- Perfect for small jobs and do-it-yourself installers

Part No.	Product No.	1	10
230367CF	3580	$10.89	$9.79

"GripP-STRIPPER" Wire Cutter/Stripper



The newest wire stripper and cutter from Paladin Tools. Combines ergonomic design with versatility. Two tools strip & cut the most common wire and cable types: electrical wire, hook-up wire, multi-conductor cable, and flat cables.

- The tool head and handles are designed at optimum 22° angle to prevent awkward wrist bends
- Spring loaded closure
- Contoured wire stripping areas precision ground for accuracy
- Non-scoring strip and smooth wire cutting
- Features screw cutter and wire loops embedded in frames • Gripping jaws on front of tool
- Size: 7.1"L x 2.3"W x .65"D • One-year warranty

Part No.	Product No.	Description	1	10
230463CF	1117	For 10-22 AWG	$14.69	$13.25
230471CF	1118	For 20-30 AWG	14.69	13.25

Data SureStrip™ Universal Cable Cutter/Stripper



This multi-purpose tool is an easy-to-use universal cable cutter and stripper for data, telephone, and network installations. Works with standard wires and can be used with coaxial cable by adjusting the blade for various strip depths.

- Cuts and strips multiple cable types: 4/6/8-conductor flat satin cables; 4/6/8-conductor UTP/STP data cables, 25-pair UTP/STP data and telephone cables; multi-conductor round bundled cables of up to 0.5" diameter; 8-14 AWG wire
- Small and compact, slips right into your pocket
- Works left or right handed
- Fully adjustable with simple thumb screw
- Self-regulating to prevent nicking
- Contoured finger grips for power cutting
- Length: 4.5" • One-year warranty

Part No.	Product No.	1	10
230447CF	1116	$19.89	$17.89

Cable Slitter/Stripper

AM25 Slitter with 2109 blade



This is the original tool designed for slitting cable insulation. Strips and slits round cables with PVC, Teflon, and THNN insulation from 0.18"–1.0" diameter.

- Adjustable cutting depth to 0.18" • Length: 5.3"
- Swivel blade for circular, longitudinal & spiral cuts
- Cable holding clip with integrated edge for removing slit insulation • Spare blade in handle
- Slits PVC, Teflon, and THHN cables
- Lifetime tool warranty; one-year on blade

Part No.	Prod. No.	Description	1	10
230404CF	1820	Cable slitter/stripper	$39.95	$35.95
236769CF	2109	Blade for 1820	13.40	12.75

RG59/6/RG6 Quad CATV "F" Coaxial Cable Stripper



The newest coax cable stripper from Paladin Tools. It combines high-performance and ergonomic design. Easily removes the outer jacket, shield braid, and inner dielectric in one single step.

- Self-regulating tension
- Adjust cutting depth on each blade for varying cable thickness with the included hex key
- Pre-set for common strip lengths (also pre-set for RG6 CATV "F") • For RG59/6/RG6 Quad CATV "F"
- Length: 4.3" • One-year warranty

Part No.	Product No.	1	10
230439CF	1257	$16.95	$15.29

CrimpALL® Crimpers for RG58/59/62AU, RJ45 & CATV "F"



230455CF

Designed with user satisfaction in mind, superior comfort, and ease of use.

- Ultra-smooth, fully-ratcheting crimp cycle with built-in safety release
- Long lasting tools that deliver over 50,000 crimp cycles
- Soft rubber embedded handles
- Rugged, double-plated jaw, designed to increase life span
- Angled head to prevent awkward wrist bending
- Reduced handle grip distance makes it easy for large and small hands
- Higher crimp force produced with less hand force
- No break-over hand force – less effort by the user to make the last click before making a complete crimp, the CrimpALL does all the work
- EZI-Change™ die screws makes changing dies quick and easy • Length: 9.9" • Weight: 1.3 lbs.

230341CF: For RG58/59/62AU with 2034 die
230332CF: For RJ45 (8P8C) with 2061 die
230455CF: For CATV "F" and RJ45 with 2687 die

Part No.	Product No.	1	10
230341CF	8001	$64.49	$57.99
230332CF	8030	64.49	57.99
230455CF	8045	69.49	62.59

Crimpers for Twisted Pair Cable and BNC/TNC



230421CF

Paladin's Original 1300 Series interchangeable-die crimping system.

- Fully-ratcheting cycle with built-in safety release
- Easy to use and maintain
- EZI-Change™ die screws make changing dies quick and easy – no screwdriver required
- Precise and tightest tolerances on die sets
- For RJ45 (8P8C) crimps 22-28 AWG flat/round, solid/stranded wires
- For 2 or 3 piece BNC/TNC connectors crimps RG58/RG59/RG62AU cables • Length: 8.9"

230421CF: Twisted pair crimper with 2061 die
- Crimps 22-28 AWG flat/round, solid/stranded wires

230412CF: BNC/TNC crimper with 2034 die
- Crimps RG58/59/62AU cables

Part No.	Prod. No.	Description	1	10
230421CF	1307	For RJ45 (8P8C)	$51.89	$46.69
230412CF	1317	For 2 or 3-pcs. BNC/TNC	51.89	46.69

30-Day Money-Back Guarantee
If you're not completely satisfied, we'll take it back!
Details on page 226.

For detailed size dimensions, please visit our website at www.Jameco.com

6-Piece Rotary Brush Set



- Bristle brushes
- Copper brushes
- Steel brushes

Part No.	Description	1	5
226641CF	6-pc. rotary brush set	$15.95	$14.35

7-Piece Rotary Finishing Set

- Copper wire brushes
- Aluminum oxide grinding wheels
- Wool polishing wheels
- Mandrel bit



Part No.	Description	1	5
226659CF	7-pc. rotary finishing set	$9.99	$8.99

7-Piece Engraving Cutter Set

- Ball tips
- Arrow head, v-cut
- Flat cut
- Bullet tip, round cut
- Fine point, v-cut
- Flat head



Part No.	Description	1	5
226624CF	7-pc. engraving cutter set	$17.95	$16.15

7-Piece Grinding/Polishing Set

- Aluminum oxide cylindrical stone
- Aluminum oxide blunt nose stone
- Cylindrical cotton
- Bullet head cotton
- Cylindrical cork



Part No.	Description	1	5
226667CF	7-pc. grinding stone set	$12.95	$11.25

10-Piece Grinding Stone Set



Aluminum oxide stone bits:

- Cylindrical
- Blunt nose
- Bullet head
- Tear drop
- Ball tip
- Flat edge wheel
- Round edge wheel

Part No.	Description	1	5
226632CF	10-pc. grinding stone set	$11.95	$10.79

22-Piece Drum Sander Set



- 3/8" & 1/2" sander bands and bits

Part No.	Description	1	5
226616CF	22-pc. drum sander set	$13.95	$12.89

30-Piece All-Purpose Bit Set



- 5 sander bands
- Steel brush bit
- Copper wire brush wheel bit
- Cylindrical cotton bit
- Drum sander
- 8 aluminum carbide, cut-off metal wheels
- 4 aluminum carbide, cut-off wood wheels
- Bullet tip, round cut engraver point
- Flat head engraver point
- Aluminum oxide, cylindrical grinding stone bit
- Aluminum oxide, bullet head grinding stone bit
- Aluminum oxide, ball tip grinding stone bit
- Aluminum oxide, wheel-type grinding stone bit
- Aluminum oxide, grinding stone wheel
- Mandrel bit
- Wool polishing wheel

Part No.	Description	1	5
226675CF	30-pc. all purpose bit set	$28.95	$26.49

Variable High-Speed Rotary Tool Kit



A multiple high-speed rotary tool kit with 6-speed selections ranging from 8,000 to 30,000 RPM, along with 40 bits and accessories, provides you all the power and precision you need to tackle almost any cutting, drilling, polishing, sanding or engraving job. With its high-speed output, plus a nylon body, you can grasp the tool lightly to perform fast rough work or delicate craftsmanship. A convenient shaft-lock button provides fast-and-easy accessory bit changing.

- 9" long variable-speed rotary tool
- Drum sander wheel
- 3 drum sander pads
- 2 felt buffing pads
- Grinder dressing stone
- Disk sanding arbor
- 6 disk sanding pads
- 7 disk grinders
- 10 rotary grinders
- 4 rotary files
- 2 drill bits
- Wrench
- One-year manufacturer's warranty

Part No.	Description	1	5
211289CF	Rotary tool kit	$44.95	$42.95

50-Piece Cut-Off Wheel Set



- 4 aluminum carbide cut-off metal wheels
- 18 aluminum carbide cut-off metal wheels
- 6 aluminum carbide cut-off wood wheels
- 22 aluminum carbide cut-off wheels

Part No.	Description	1	5
226608CF	50-pc. cut-off wheel set	$24.49	$22.29

We'll Send It Today!

Just place your order by 6PM EST for same business day shipment

Rotary Tool Accessory Bulk Packs



226561CF/226587CF 226552CF/226579CF | 226595CF | 226510CF | 226528CF | 226472CF | 226456CF | 226501CF/226499CF | 226536CF | 226544CF | 226448CF | 226464CF | 226481CF

Part No.	Description	Price
226561CF	Aluminum carbide cut-off wheel 1¼"Dia. x 1/16"T (10 pk)	$7.95
226587CF	Aluminum carbide cut-off wheel 1.0"Dia. x 0.02"T (20 pk)	8.49
226552CF	Aluminum carbide cut-off wheel 15/16"Dia. x 0.02"T (20 pk)	8.49
226595CF	Aluminum carbide cut-off wheel 15/16"Dia. x 0.02"T (4 pk), wood	4.99
226579CF	Aluminum carbide cut-off wheel 7/8"Dia. x 0.01"T (10 pk)	8.49
226510CF	Aluminum oxide grinding wheel 0.9" x 0.1" (10 pk)	7.49
226528CF	Aluminum oxide grinding wheel 0.9" (10 pk)	7.49
226472CF	Sander band 3/8"Dia. (8 pk)	6.79
226456CF	Sander band aluminum oxide bit 1/2"Dia. (15 pk)	$6.79
226501CF	Copper wire wheel 1.0"Dia. (3 pk)	8.49
226499CF	Copper wire wheel 3/4"Dia. (3 pk)	7.59
226536CF	Wool polishing wheel 1/2"Dia. (10 pk)	8.95
226544CF	Wool polishing wheel 1.0"Dia. (10 pk)	8.95
226448CF	Drum sander bit 1/2"Dia. (2 pk)	2.95
226464CF	Drum sander bit 3/8"Dia. (2 pk)	2.95
226481CF	Mandrel bit, 1-7/8" x 0.1" (4 pk)	5.95

3M Portable Vacuum Cleaner

Avoid inhaling tiny airborne toner particles that almost all vacuums blow out their exhaust. Designed for clean-up of hazardous material, 3M's Government Solutions Division has created this powerful 1HP/5A vacuum with a fully enclosed disposable HEPA filter providing 99.97% efficiency at 0.3 microns. Preferred by service professionals everywhere because of its portability and quick setup, the ingeniously designed compact heavy duty case is, itself, the vacuum cleaner. All attachments, power cord, and even the 10' super stretch hose fit conveniently in the case. The motor has factory sealed ball bearings to stand up to even the most demanding tech professionals.

Includes: 10' super stretch hose, crevice nozzle, tubular nozzle, dusting brush and type 2 filter







Replacement filter
219563CF



219555CF

Part No.	Product No.	Description	Size (L" x W" x H")	Wt. (lbs.)	1	5
219555CF	SV497AJM	Electronic portable vacuum with case	17.8 x 7.8 x 9.3	10.3	$249.95	$234.95
219563CF	SV497AJM	Type II filter for P/N 219555CF	—	—	21.95	19.95

Data VAC PRO Vacuum/Blower





Carrying case
219248CF

The Data-Vac "PRO" has plenty of power for the toughest jobs plus a toner filter system that picks up dangerous toner spills from laser printers and copiers. "PRO" is perfect for cleaning all types of office equipment—from micros to mainframes, laser printers, copiers, fax machines, disc drives, calculators, and automatic teller machines.

Includes: 6' flexible hose, pik-all air pin pointer, crevice tool, snap in brush, soft bristle dusting brush, snorkel probe, air maximizer, adapter nozzle, flexible neck extension wand, micro dusting brush and micro crevice tool

Part No.	Description	1	5
219213CF	Data VAC PRO vacuum	$148.95	$139.95
219248CF	Carrying case	57.95	55.95
219230CF	Toner replacement bags (5pk)	34.95	29.95
219221CF	Disposable paper bags (5pk)	5.95	5.49

Powerful Cordless Screwdriver Set



Save time and your wrist with those stubborn screws. This 4.8 Volt rechargeable cordless screwdriver features a spindle lock for greater control and a 180 RPM motor that produces 40 in.-lb. of torque for starting and finishing screws. Comes with 2 magnetic bit holders, 11-piece bit set (5 slotted, 3 Phillips, 3 torque), and power supply at no extra cost.

- Narrow nose for extended reach in tight places
- Construction grade quality • Size: 10.5" long
- Recharges in 7 to 9 hours • Weight: 1.4 lbs.

Part No.	Description	1	5
211254CF	Cordless screwdriver	$18.95	$17.95

Adjustable Cordless Screwdriver



- Adjustable handle can be used folded or unfolded
- Thumb switch for reverse and forward action
- No load speed: 180 RPM
- Clutch operating torque from 4 to 21kg-cm
- 3.6V rechargeable battery
- Size: 10.5"L x 1.5" Dia. • Weight: 1.6 lbs.

Includes: 6VDC @ 300mA power supply and screwdriver bits, slotted and Phillips

Part No.	Description	1	10
176680CF	Cordless screwdriver	$39.95	$35.95

30-Pc 1/4" Bit Set with Organizer



A 30-piece bit set supplied in a neat, compact storage drum organizer allows quick access, identification, and selection of the desired bit. All the bits are compatible with power tools, rechargeable drills, and multi-bit screwdriver handles.

Set includes:

- Nut bits: 7/16", 3/8", 11/32", 5/16", 9/32", 1/4", 3/16"
- Hex bits: 3/16", 1/8", 7/64", 5/64"
- Torx bits: T10, T15, T20, T25, T30
- Phillips bits: #0, #1, #2, #3
- Slotted bits: #3, #4, #5, #6, #7 • Pozi bits: #1, #2, #3
- 1 bit holder • 2 screw aligners

Part No.	Description	1	5
227230CF	30-piece 1/4" bit w/ organizer	$9.95	$8.95

Mini-Drill and Stand



This Mini Drill is excellent for drilling through circuit boards and proto-boards. The drill comes with an array of drilling, grinding and sanding attachments. Drill stand is designed to function like a drill press.

Part No.	Description	Wt. (lbs.)	1	10	25
26702CF	MS398 drill	0.8	$29.95	$26.95	$23.95
26711CF	MS399 stand	1.8	19.95	17.95	15.95

Pocket Multi-Tools

These heavy-duty, all-in-one multi-tools are really handy for do-it-yourself users, students, handymen, and sportsmen. Folded, they fit in the palm of your hand or slip into a sheath on your belt. Just the tools you need for everyday use!



227264CF
2.75" closed



227221CF
2.5" closed



227192CF
4.0" closed



227184CF
3.0" closed



227213CF
5.0" closed



227176CF
6.0" closed



227205CF
4.75" closed

		227264CF	227176CF	227221CF	227192CF	227184CF	227213CF	227205CF
Accessory bits							7	11
Adjustable wrench			1					
Awl				1	1	1		1
Can/bottle opener		1 (bottle)		2	2	2	2	2
File (wood/metal)		1 (metal)		1 (metal)	1 (metal)	2		
General screwdriver handle							1	1
Flashlight		1						
Hammer, nail remover							2	
Hex nuts						1	3	1
Knife blade		1	1	1	1 (small)	1	1	
Nail pick		1		1				
Pliers, regular			1			1		
Pliers, handyman/long-nose		2	2	1	2	2		2
Ruler					1			
Saw			1				2	1
Scissors				1				1
Screwdriver, flat head			1 (large)	1 (small)	3 (S, M, L)	2 (S, M)		
Screwdriver, Phillips		1	1	1	1	1	1	
Wire cutter		1	1	1	1	1		1
Description		**9-in-1**	**9-in-1**	**11-in-1**	**13-in-1**	**14-in-1**	**19-in-1**	**21-in-1**
Pricing	**1**	**$11.95**	**$19.95**	**$11.95**	**$19.95**	**$19.95**	**$19.95**	**$19.95**
	5	**10.95**	**18.95**	**10.95**	**18.95**	**18.95**	**18.95**	**18.95**

SALE

Pentium® II Class Motherboards

ATX Motherboards are compatible with Intel Pentium® II processors.


188082CF


185367CF


188074CF


185359CF


185674CF

Part No.		188082CF	185367CF	188074CF	185359CF	185674CF
Processor		Slot 1*	Slot 1	Slot 1*	Slot 1	Dual Slot 1
Speed		233-333 MHz	233-333 MHz	233-266 MHz	233-433 MHz	233-333MHz
Chip set		440LX	440LX	440LX	440EX	440LX
BIOS		Award	Award	Award	Award	Award
Memory		SIMM (72-pin)	EDO (168-pin)	EDO (72-pin)	SDRAM (168-pin)	EDO (168-pin)
Capacity		384MB	384MB	384MB	256MB	1,024MB
Slots		6	3	6	2	4
Speed		66 MHz	66 MHz	66 MHz	66 MHz	66MHz
Slots						
PCI		5	4	5	2	5
AGP		None	1	1	1	1
ISA		3	3	3	2	2
Interfaces						
Hard Drive		4 EIDE	4 EIDE	4 EIDE	4 EIDE	2 IDE, SCSI
Floppy		2	2	2	2	2
USB		2	2	2	2	2
Parallel		1	1	1	1	1
Serial		2	2	2	2	2
IrDA		None	None	1	None	None
Sound		CS4237B	None	None	ESS	None
Keyboard		PS/2	PS/2	PS/2	PS/2	PS/2
Video		None	None	None	None	None
Size		12" x 9.6"	12" x 7.4"	12" x 9.6"	9" x 7.8"	12" x 9.6"
Weight		2.6 lbs.	2.5 lbs.	2.6 lbs.	1.9 lbs.	3.0 lbs.
Price	1	~~$29.95~~ $16.65	~~$45.95~~ $23.95	~~$21.95~~ $12.49	$24.95	~~$45.95~~ $26.75
	10	$15.15	$21.19	$11.25	$22.45	$24.29

* Also supports the Intel Celeron™ processor **Slot 1:** Intel Pentium® II processor (see page 69)

DIMM and SIMM Memory


148398CF


148443CF

Part No.	Mfr. Cross Ref. No.	Pins	Description	1	10
148398CF	4MBX64SDRAM	168	4M x 64 10ns Syn. DRAM DIMM (32MB)	$16.95	$15.95
148401CF	8MBX64SDRAM	168	8M x 64 10ns Syn. DRAM DIMM (64MB)	35.95	32.29
148419CF	16MBX64SDRAM	168	16M x 64 10ns Syn. DRAM DIMM (128MB)	69.95	62.99
130729CF	JEEDO7208	72	2M x 32 60ns SIMM EDO module (8MB)	9.95	7.95
130711CF	JEEDO7216	72	4M x 32 60ns SIMM EDO module (16MB)	12.79	11.49
148443CF	JEEDO7232	72	8M x 32 60ns SIMM EDO module (32MB)	43.95	39.59
148451CF	JEED07264	72	16M x 32 60ns SIMM EDO module (64MB)	29.95	28.45
75133CF	P361000-XX-6	72	1M x 36 60ns SIMM module (4MB)	~~$14.95~~ 12.95	11.65
75096CF	P362000-XX-6	72	2M x 36 60ns SIMM module (8MB)	21.99	19.99
75184CF	P364000-XX-6	72	4M x 36 60ns SIMM module (16MB)	28.99	26.99
75168CF	P364000-XX-7	72	4M x 36 70ns SIMM module (16MB)	38.99	36.99
148460CF	8MBX36-60	72	8M x 36 60ns SIMM module (32MB)	48.99	46.99
41751CF	421000A9B-70	30	1M x 9 70ns SIMM module (3 chips)	3.95	3.45

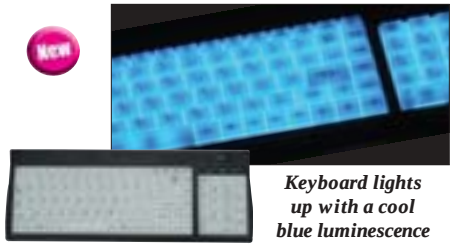
Work or Play at your PC under any lighting conditions!

Illuminated Computer Keyboard

Work or play under any lighting conditions with this unique, trendy keyboard. Lit with a cool blue luminescence, all keys on this PS/2 peripheral are instantly identifiable, even in total darkness. Why break the mood of your favorite game with harsh overhead lighting, when you can keystroke with perfect, futuristic, illuminated accuracy?

- Size: 15.3"L x 5.9"W x 1.3"H • Weight: 1.7 lbs.

Part No.	Description	Price
235563CF	Illuminated computer keyboard	$79.95


Keyboard lights up with a cool blue luminescence

Celeron 400-700MHz and Pentium III 533-1000MHz

Intel 815E (Solano 2) Chipset



- Phoenix BIOS
- Windows® Plug and Play compatible
- Slot 370 type for Celeron 400MHz-700MHz or Pentium® III 533MHz to 1000MHz
- Supports three 168-pin SDRAM PC100/ PC133 memory upgradeable to 512MB
- 6 PCI slots and 1 AGP slot
- On-board I/O controller: 2 EIDE ports that support 4 EIDE devices, floppy drive port that supports LS-120 drive; IRDA port
- PS/2 female keyboard and mouse; 2 USB ports; DB9 male and female serial ports; DB25 female parallel port; DB15 female game port; 3 audio I/O jacks (modular connectors)
- 20-pin ATX form factor
- Size: 12.0"L x 8.8"W • Weight: 3 lbs.

Includes: Manual and drivers on CD-ROM

Part No.	Mfr. Cross Ref. No.	1	10
218835CF	SY-71SA	$64.95	$59.95

Intel® AnyPoint Home Network

Powerful, Simple, Fast Network!



Save money sharing files, printers, modems and DSL connections on a network. In the past, networking has been reserved for companies and businesses, since the cost of setting up one for home use was too expensive to be justified. However the use of computers is increasing and households having more than one is becoming much more common. Installing networks require Ethernet cards, hubs, cables, reading extensive manuals, opening up your computer to install hardware, and so on. Wouldn't it be nice if setting up your network was as easy as plugging in a keyboard or a mouse? Intel thought so, and introduced the AnyPoint Home Networking System. Install this network in three easy steps: connect the cables to the parallel port of your PC & existing phone lines of your home, install the software with it's tutorial interface, and you have a network up and running.



Special Purchase
Now $29.95
Was $189.99

- Freq. range: 5.5 to 9.5MHz
- Max. distance between nodes: 500'
- Controller: Intel® 21145 phoneline/Ethernet LAN controller
- No wires or cables to run; use existing phone lines
- 3 easy steps to install a complete network
- Save money by sharing a printer and having both computers access the same internet connection
- Size: 8.0"H x 3.8"W x 3.8"D

Includes: 2 phone cables, 2 data cables (parallel cables), 2 power supplies, manual & CDROM drivers

System requirements: 486 or higher processor, Windows 95/98, 8MB of RAM, 18MB of hard disk space, parallel port for printer use

Part No.	Description	Price
220417CF	Home network	$29.95

For Networking Products see pages 184 and 201

ATX 150-Watt



- **Output:**
  +3.3V @ 6A
  +5V @ 10A
  +12V @ 6A
  +5VSB @ 0.72A
  -5V @ 0.2A -12V @ 1A
- 20-pin ATX form factor
- Mating input connector: suggest using P/N 38050CF power cord, pg 49 – not included
- Built-in fan • Power on/off switch
- Input voltage: 115/230VAC @ 50-60Hz (auto switching)

Part No.	Product No.	Description	1	10	25
196189CF	MPW-6150F	150W	$34.95	$31.49	$27.95

AT 200-Watt



- **Output:**
  +5V @ 20A
  +12V @ 8A
  -5V @ 0.5A
  -12V @ 0.5A
- Input voltage: 115/230VAC @ 50-60Hz (switchable)
- AT compatible connectors
- Mating input connector: 3-prong AC receptacle with 6' power cord
- Built-in fan

Includes: 6' power cord

Part No.	Product No.	Description	1	10	25
172822CF	AA-230	200W	$44.95	$39.95	$35.95

ATX 250-Watt + 250-Watt Redundant



- **Output:**
  +3.3V @ 15A
  +5VSB @ 1.5A
  +5V @ 30A
  +12V @ 14A
  -5V @ 0.5A -12V @ 1A
- Hot swappable; power fail alarm
- Input volt.: 90-264VAC @ 47-63Hz (auto ranging)
- Built-in fan
- 20-pin ATX form factor
- Internal OR-ing diode for redundant operation

Part No.	Product No.	1	10	25
201443CF	EPR2251	~~$229.95~~ $109.49	$99.55	$90.49

145 to 400-Watt PC Power Supplies

Part Number	Mfr.	Product Number	Power (W)	Output (VDC/A)	Input (VAC @ Hz)	Input Connector (Mating Connector/Cord)	Output Conn. (Mating Conn.)	Certification	Size (L" x W" x H")	Wt. (lbs.)	Pricing 1	10	25
201435CF	Xtreme Power	EPA400	400	+3.3/33, +5/45, +12/15, +5VSB/1, -5/1, -12/1	115/230 @ 47-63 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CSA/TUV/CE	5.6 x 5.9 x 3.4	5.0	$109.99	$93.49	$70.15
155539CF	American Media	JE2033	300	+3.3/14, +5/30, +12/8, +5VSB/1.5, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CSA/TUV	5.9 X 5.5 X 3.4	3.7	~~$89.95~~ 69.95	62.95	56.95
155811CF	—	JE5300	300	+3.3/14, +5/25, +12/12, +5VSB/0.8, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CSA/TUV	5.9 x 5.5 x 3.2	4.1	79.95	71.95	64.95
205938CF	TGR	FA250N16	250	+3.3/14, +5/25, +12/10, +5VSB/3, -5/0.5, -12/1	115/230 @ 50-60 switchable	3-prong AC receptacle (P/N 38050CF, pg 49)	ATX	UL/CUL/TUV/CE	5.5 x 6.0 x 3.5	3.5	~~$39.95~~ 21.95	19.39	17.35
152194CF	American Media	JE2031	250	+3.3/14, +5/25, +12/10, +5VSB/1.5, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CSA/TUV	6.0 x 5.5 x 3.4	3.5	~~$69.95~~ 49.95	44.99	40.49
152514CF	High Power	JE8250	250	+3.3/16, +5/25, +12/10, +5VSB/1.5, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CSA/TUV	5.5 x 5.9 x 3.4	3.3	~~$69.95~~ 44.95	39.95	36.39
196437CF	Hipro	HP235NLXAK	235	+3.3/14, +5/25, +12/8, +5VSB/0.1, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle (P/N 38050CF, pg 49)	ATX	UL/CSA/TUV/CE	5.5 x 5.9 x 3.2	3.2	24.99	21.25	15.35
196111CF	SPI	FSP23560GT	235	+3.3/14, +5/22, +12/8, +5VSB/0.8, -5/0.3, -12/0.8	100/240 @ 50-60 switchable	3-prong AC receptacle (P/N 38050CF, pg 49)	ATX	UL/CUL/TUV/CE	5.6 x 5.9 x 3.4	3.2	34.95	26.25	18.35
202788CF	Enhance	SFX2015	150	+3.3/7, +5/12, +12/5, +5VSB/0.8, -5/0.2, -12/0.3	115/240 @ 47-63 switchable	3-prong AC receptacle (P/N 38050CF, pg 49)	ATX	UL/CUL/TUV/CE	5.9 x 3.6 x 3.4	2.1	34.95	29.49	22.29
196189CF	Emaos	MPW-6150F*	150	+3.3/6, +5/10, +12/6, +5VSB/0.72, -5/0.2, -12/1	115/230 @ 50-60 switchable	3-prong AC receptacle (P/N 38050CF, pg 49)	ATX	UL/CUL/TUV/CE	7.5 x 4.0 x 1.6	2.5	34.95	31.49	27.95
205639CF	Sunpower	SQ-3005	300	+5/30, +12/12, -5/0.5, -12/0.5	115/230 @ 50-60 auto switching	3-prong AC receptacle with 6' power cord	IBM AT	UL/CSA/VDE	5.6 x 5.9 x 3.4	4.1	59.95	53.95	48.95
132185CF	APS	JE1035	300	+3.3/28, +5/30, +12/10, -5/1, -12/1	110/220 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	IBM AT	UL/CSA/TUV	5.5 x 5.9 x 3.4	4.7	109.95	99.95	89.95
196728CF	L & C	LC300ATX	300	+3.3/14, +5/25, +12/10, +5VSB/1, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle (P/N 38050CF, pg 49)	IBM AT	UL/CSA/TUV/CE	6.0 x 5.5 x 3.4	2.5	~~$49.95~~ 25.75	23.19	20.85
190094CF	Delta	DPS200PB	200	+3.3/20, +5/20, +12/8, -5/0.5, -12/0.5	100-240 @ 50-60	3-prong AC receptacle (P/N 38050CF, pg 49)	IBM AT	UL/CSA/TUV	5.5 x 5.9 x 3.4	3.2	8.95	7.95	7.15
189704CF	Astec	SA1453490	145	+5/18, +12/6, -5/0.3, -12/0.8	100-240 @ 50-60	3-prong AC receptacle (P/N 38050CF, pg 49)	IBM AT	UL/CSA/VDE/CE	5.9 x 5.5 x 3.4	2.3	29.95	26.95	23.95
201443CF	Etasis	EPR2251*	250/250 Dual	+3.3/15, +5/30, +12/14, +5VSB/1.5, -5/0.5, -12/1	90-264 @ 47-63 auto ranging	3-prong AC receptacle with 6' power cord	AT	UL/CUL/TUV/CE	7.0 x 3.4 x 9.0	2.6	~~$229.95~~ 109.49	99.55	90.49
174465CF	Logic Concept	LC250C	250	+5/20, +12/10, -5/0.5, -12/0.5	110/220 @ 50-67 switchable	3-prong AC receptacle with 6' power cord	AT	UL/CSA/TUV/CE	5.5 x 5.9 x 3.4	2.0	49.95	44.95	39.95
233525CF	Sparkle Power	SPI-230G	230	+5/23, +12/9, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle (P/N 38050CF, pg 49)	AT	UL/CSA/TUV	5.9 x 5.5 x 3.4	2.0	34.95	31.45	28.29
200694CF	Compaq	DPS-200PB-38	200	+5/22, +12/7, -5/0.15, -12/0.15	110/230 @ 50-60 switchable	3-prong AC receptacle (P/N 38050CF, pg 49)	AT	UL/CSA/TUV	5.5 x 5.9 x 3.5	2.8	~~$39.95~~ 19.95	17.59	15.95
172822CF	Mean Well	AA-230*	200	+5/20, +12/8, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	AT	CSA/TUV/CE	6.0 x 4.6 x 3.4	2.6	44.95	39.95	35.95
190115CF	API	API-3186S	200	+3.3/20, +5/20, +12/8, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle (P/N 38050CF, pg 49)	STD AT	UL/CSA/TUV	5.5 x 5.9 x 3.7	3.5	9.59	8.69	7.79

* See photo above

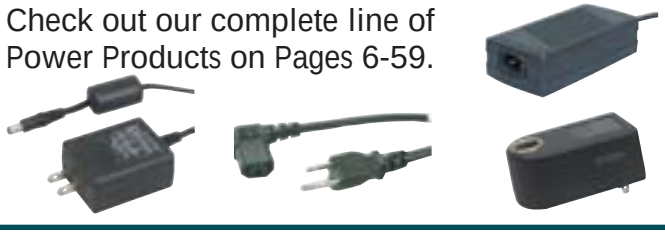


See the yellow and green highlighted items.

Special Jameco Values!

Sale details are on page 3.

Check out our complete line of Power Products on Pages 6-59.



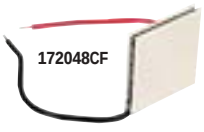
Back Panel PC Cooling Fan



- Type: sleeve axial fan
- Back panel mountable
- Operating volt.: 12VDC @ 140mA
- Airflow: 43 CFM
- Noise ratio: 26dBA
- Power: 1.7W
- 10.5" wire with 4-pin Molex power connector
- Size: 4.3"L x 3.5"H x 1.1"Thick • One-year warranty

Part No.	Description	1	10	50
152240CF	PC cooler fan	$19.95	$17.95	$15.95

Thermoelectric Cooler Chips



- Cools down to -30˚C (dependent on external temp.)
- T max. = 60˚C
- 20 AWG wire leads, 4" long
- Heat or cool by changing direction of current

172030CF: 8.4VDC max.
- Couples: 71* • Watts: 19.7
- Current: 4A max. • Size: 1.2"L x 1.2"W x 0.2"T

172048CF: 15.4VDC max.
- Couples: 127* • Watts: 35.6
- Current: 4A max. • Size: 1.6"L x 1.6"W x 0.2"T

172056CF: 15.4VDC max.
- Couples: 127* • Watts: 79.1
- Current: 8A max. • Size: 2.0"L x 2.0"W x 0.2"T

Part No.	Mfr. Cross Ref. No.	1	10
172030CF	TEC30	$19.95	$17.95
172048CF	TEC40	25.95	22.95
172056CF	TEC50	33.75	29.35

* Couples: # of P&N type semiconductor pairs connected electrically in series

Order Anytime 24x7x365
Phone 1-800-831-4242 Fax 1-800-237-6948
Online www.Jameco.com

CPU Heat Sinks and Fans

See page 77 for Heat Sink Compound

See page 69 for CPUs



- Excellent for avoiding CPU overheating during extended system on-time
- High efficiency cooling fans • Easy installation – just snap it in

Part No.	Description	Size (H" x W" x D")	Agency Approvals	1	10	50	100
211211CF	Heat sink w/ fan slot (SECC 1)	2.05 x 4.92 x 1.17	UL/CSA/TUV/CE	$9.95	$8.95	$7.95	$6.95
206244CF	Heat sink w/ dual fan slot (SECC 2)	5.25 x 1.95 x 1.30	CE	12.95	11.65	10.49	9.49
196242CF	Heat sink w/ fan for socket 7 (ATX)	2.26 x 2.12 x 1.07	UL/CE/TUV	9.95	8.95	7.95	6.95
181278CF	Heat sink w/ fan for socket 7 (ATX)	2.12 x 2.05 x 1.67	UL/CE/CSA $9.95	8.49	7.65	6.89	6.19
216506CF	Heat sink w/ fan for socket 7 (AT/ATX)	1.95 x 2.05 x 1.37	CE	9.95	8.95	7.95	7.95
190545CF	Heat sink w/ fan for socket 370	2.45 x 2.42 x 2.10	— $19.95	14.99	13.99	12.99	11.99
203115CF	Heat sink for socket 7 & 370 – adhesive back	0.80 x 2.19 x 1.96	UL/CSA/TUV/CE $4.49	1.65	1.49	1.35	1.25
203123CF	Heat sink for socket 7 & 370 – adhesive back	1.77 x 2.10 x 2.34	UL/CSA/TUV/CE $4.95	1.85	1.69	1.55	1.39
185607CF	Heat sink w/ fan for socket 7 & 370	0.98 x 2.37 x 2.40	UL/CE/TUV	14.95	13.49	11.95	10.75
118092CF	Heat sink w/ fan for 586 CPU w/ snap	2.18 x 2.30 x 0.86	UL/CE/TUV	3.95	3.19	2.39	1.69
129226CF	Heat sink for 486 CPU – adhesive back	1.70 x 1.63 x 0.36	—	2.95	2.65	2.39	2.15
129234CF	Heat sink for 486 CPU – adhesive back	1.70 x 1.64 x 0.66	—	2.95	2.69	2.29	1.79
191636CF	Heat sink w/ fan for 486 CPU w/ clip	1.85 x 1.92 x 0.72	UL/CE/TUV	5.95	4.95	2.99	2.99
174115CF	Heat sink w/ fan for 486 CPU w/ snap*	1.93 x 1.96 x 0.93	UL/CUL	2.99	2.69	2.29	1.99

* 14" lead wires

State-of-the-Art Audio Products

SENNHEISER "The World Standard In Professional Audio"

Noise Canceling Headphones



Folded in case

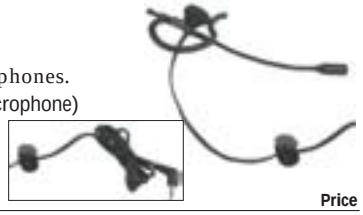
Eliminate "acoustic junk" noise from cars and machines that cause stress and lead to anxiety and problems with concentration. The NoiseGard system filters out that fatiguing, annoying noise and really lets you enjoy your favorite music. These incredible headphones work on a simple physical principle: sound is cancelled out by anti-static sound, which is phase-shifted through 180˚. Lovers of classical music will be treated to detailed sound reproduction and clear separation of instruments. Those into pop music can enjoy a rich powerful bass response.

- Fold and flip – design allows the ear cups to be turned through 90˚ and fold the headphone closed
- 1.8m Kevlar-reinforced OFC copper cable w/ 3.5mm jack
- Dynamic, closed transducer principle
- 10Hz to 21,000Hz frequency response
- Supplied with soft belt pouch with extra pocket
- 300Ω impedance
- 106dB sound pressure level

Part No.	Description	Price
227088CF	Foldable noise canceling headphone	$149.95

SENNHEISER

Cellphone Headset



The MAB-18 is the first in-ear system headset for mobile telephones. It offers a flexible microphone arm, cable clip and the possibility of left or right wearing style. It comes with a 2.5mm jack plug that is compatible with most mobile phones.

- 20Hz to 22,000Hz freq. response (headphones); 40-15,000Hz (microphone)
- Omni-directional microphone
- 32W impedance (headphone), 1.4kW impedance (microphone)
- 106dB sound pressure level

Part No.	Description	Price
227096CF	Cell phone headset	$21.95

U.S. Robotics® Wireless Audio Broadcast System



Why limit your music's reach when you can listen to your favorite tunes anywhere. Release your MP3s and Internet radio from the confines of your computer and listen to them in HI-FI on stereo from the living room. Simply plug the transmitter into a music source (PC / MP3 player, CD / DVD, etc.) and either plug the receiver unit into your stereo's audio input or simply set your FM tuner to 88.1 or 88.3 station.

- Listen and enjoy internet radio/audio on your home stereo or any FM receiver
- Freedom to rebroadcast music where you are
- Transmits on 900MHz frequency up to 1000'
- Compatible with any audio device's 3.5mm or RCA output jack
- Size: (transmitter) 3.8"H x 4.9"W x 4.0"D; (receiver) 3.7"H x 4.9"W x 3.7"D • Weight: 2.2 lbs.

Includes: Two 6VDC @ 100mA power supply, 3.5mm stereo cable, 3.5mm to RCA cable, RCA cable

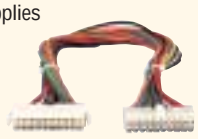
Part No.	Description	1	5
210981CF	Wireless audio system	$69.95	$62.95

Computer

Color Code Legend: New | Sale | Qty Save | Refurbished | Pull

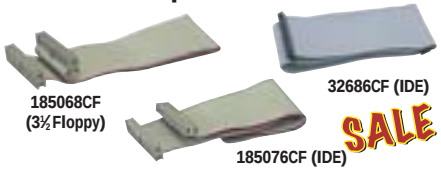
ATX Power Supply 15" Extension Cable

- For use with ATX power supplies
- 20-pin ATX male and female connectors
- Color coded to ATX power supply code
- 15"L x 18 AWG (wires)



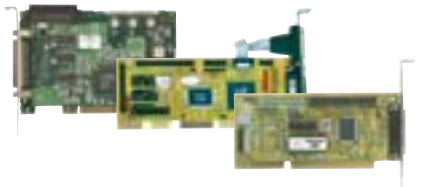
Part No.	Mfr. Cross Ref. No.	1	10	100
170237CF	ATX-400-RV	$6.49	$5.85	$5.29

Internal Computer Ribbon Cables



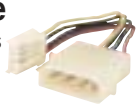
Part No.	Conductors	Length	1	10	100
185068CF	34	9.0"	$2.95	$2.55	$1.89
185076CF	40	14.0"	~~$2.95~~ .79	.69	.59
32686CF	40	18.0"	3.95	3.49	2.95

Controller Cards Page 189



3.5" Disk Drive Power Adapter Cable

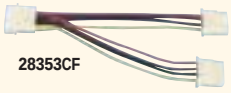
- IBM PC/XT and higher compatibles
- Allows connection of standard 3.5" disk drives to power supplies



Part No.	Length	AWG	1	10	100
28396CF	3.5"	22	$2.49	$2.25	$1.95

3.5" & 5.25" Disk Drive Power Splitters

- IBM PC/XT and higher compatibles
- Splits 4-line Molex male into 2 females



Part No.	Drive	AWG	Length	1	10	100
28353CF	5.25"	18	5"	$2.95	$2.69	$2.15
72303CF	3.5"	22	5"	2.75	2.49	2.19

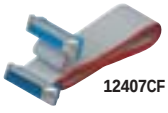
30-Day Money-Back Guarantee

If you're not completely satisfied with your order, we'll take it back!

Details on page 226.

Ribbon Cable Assemblies

- Metal connector
- 300V rating • 105°C rating
- 28 AWG flat cable
- Tin-plated contacts



Part No.	Description	1	10	100
12407CF	4' DB25 M-F	$4.49	$3.95	$3.59
208581CF	6' DB9 M-F	3.95	3.55	3.19
208590CF	6' DB25 M-M	~~$4.95~~ 3.15	2.85	2.59
208602CF	6' DB25 F-F	~~$4.95~~ 3.15	2.85	2.59

Computer Card Brackets



Fig.: 1 2 3 4 5

- For securing cards into bus slots
- Fits standard PC/XT/AT cases • Length: 4.75"
- See pg 133 for DB connectors

Part No.	Description	Fig.	1	10	100
11754CF	Blank back panel	1	~~$2.09~~ $1.79	$1.59	$1.45
101717CF	For DB9 connector	2	1.79	1.59	1.45
101733CF	For DB25 connector	3	1.79	1.59	1.45
101741CF	For DC37 connector	4	1.79	1.59	1.45
101830CF	For DB9/DB25 conn.	5	~~$1.99~~ 1.79	1.59	1.45

Panel Bracket Cable Assemblies

- Standard computer back panel brackets
- Length: 12"
- Ribbon cable with header connector

149614CF: 2 serial ports
149622CF: 1 parallel port
179995CF: 1 parallel & 2 serial ports





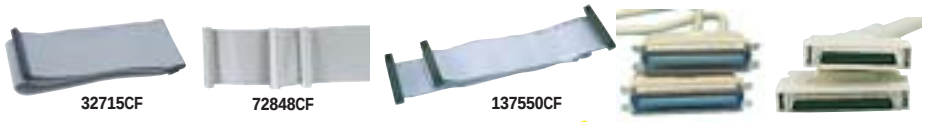
Part No.	Description	1	10	25
149614CF	DB9M to 10-pin header			
	DB25M to 10-pin header	$4.95	$3.75	$2.65
149622CF	DB25 to 26-pin header	4.95	3.75	2.65
179995CF	DB9M to 10-pin header DB25M to 10-pin header DB25F to 26-pin header	1.19	1.09	.99

Disk Drive Cables



Part No.	Description	Cable Length	1	10	100
185084CF	34-pin header socket ribbon cable for floppy drive	25"	$1.19	$1.05	$.76
32918CF	34-pin header socket ribbon cable for floppy to card	23"	3.49	2.99	2.25
72805CF	Two 40-pin header socket ribbon cable for IDE drive	18"	3.69	3.09	2.19
179987CF	One 40-pin and one 34-pin cable kit	20"/25"	~~$6.95~~ .55	.49	.45
175492CF	40-pin header socket ribbon cable for ultra DMA66/100	17"	6.95	6.25	5.49

Internal and External SCSI Cables for Complete Connectivity



- For PC/XT/AT and compatibles • All lines connected

SALE

Part No.	Description	1	10	100
32715CF	50-pin header socket ribbon cable SCSI-I (18")	$3.95	$3.49	$2.95
72848CF	50-pin header socket ribbon cable SCSI-I (24")†	3.49	2.95	2.49
137550CF	68-pin header internal ribbon cable SCSI-III (27")	17.95	15.95	14.49
189641CF	68-pin header internal ribbon cable with term SCSI-III (42")	~~$19.95~~ 6.15	5.59	5.19
73162CF	Male 50-pin Centronics to male 50-pin Centronics SCSI-I to SCSI-I (6')†	~~$7.95~~ 2.35	2.15	1.95
118084CF	Male 50-pin Centronics to male HPDB50 cable SCSI-I to SCSI-II (6')	14.95	13.49	11.95
118914CF	Male HPDB50 to male HPDB50 SCSI-II to SCSI-II (3')	14.95	13.49	11.95
118076CF	Male HPDB50 to male HPDB50 SCSI-II to SCSI-II (6')	17.95	15.95	13.95
137576CF	Male HPDB68-pin to male 50-pin Centronics SCSI-III to SCSI-I (3')	~~$19.95~~ 18.49	16.65	14.95
137568CF	Male HPDB68-pin to male HPDB50-pin SCSI-III to SCSI-II (3')	12.95	11.49	9.95

† Also Macintosh® compatibles, see right for SCSI type connector guide

SCSI Adapters



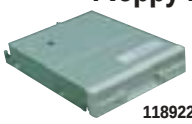
- See below for SCSI-type connector guide

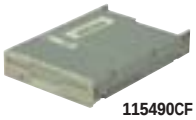
Part No.	Description	1	10	50
133920CF	50-pin ribbon header SCSI-I to DB25 female	$8.95	$7.95	$7.25
125241CF	50-pin ribbon header to HPDB50 SCSI-II female	9.95	8.95	7.95
167370CF	DB25 female to HPDB50 male SCSI-II	9.95	7.49	5.25

SCSI Type / Connector Reference Table

SCSI type	DB25	50-pin Centronics	50-pin Header	Half pitch DB50	Half pitch DB68	VHD68 Centronics	VHD80 Centronics
SCSI-I	✔	✔	✔				
SCSI-II			✔	✔			
SCSI-II wide					✔		
SCSI-III					✔	✔	
RAID: SCA, SCA-2							✔

1.44MB 3.5" Internal Floppy Disk Drives


118922CF


115490CF

- IBM PC/XT and higher compatibles
- Compatible with DOS versions 3.3 or higher
- Automatically determines if disk is high or low density
- Size: 4.0"W x 5.9"D x 1.0"H (actual drive size)
- Weight: 1.4 lbs.

✶ Refurbished

Part No.	Mfr. Cross Ref. No.	Mfr.	Color	1	10
224346CF	JU256A216P✶	Panasonic	Gray	$16.95	$15.25
118922CF	MPF520-1	Sony	Beige	29.95	26.95
115490CF	FD235	TEAC	Beige	21.95	19.95
189165CF	—	Varies	Beige	~~$15.95~~ 9.95	8.95
189350CF	—	Varies	Black	~~$15.95~~ 6.75	6.15
224012CF	FD235HF	TEAC	Black	12.95	11.65
200686CF	—	Varies	No Bezel	~~$9.95~~ 6.95	5.95

3.5" Drive Mounting Kit



- For mounting a 3.5" floppy drive into a 5.25" slot

Includes: Beige faceplate

Part No.	Description	1	10	50
32088CF	Drive mounting kit	$7.69	$6.95	$6.25

5.25" Hard Drive Cooling Assembly

Dual Fans for Even Cooling



Keep your hard drive cool by using less space. These hard drive cooling fans have 2 high-airflow fans that provide 70% heat dissipation.

SALE

- RPM per fan: 3800
- Combined airflow: 28 CFM
- Dual 12V sleeve bearing fan
- Power consumption: 1.44W each
- Easy installation
- Size: 5.7"L x 5.5"W x1.2"H

Includes: Mounting hardware

Part No.	Description	1	10	25
175302CF	HD cooler (5.25")	~~$19.95~~ $9.95	$9.59	$9.19

CD Laser Lens Cleaner



- 6-language voice guide instructions
- Single brush wet-dry cleaner
- Removes accumulated oils, dust and debris from CD optical lens

Part No.	Description	1	10	25
228531CF	CD Laser Lens Cleaner	$9.99	$8.99	$7.39

Check Out Our New Cat 6 Cables & Patch Panels on page 203





IDE, EIDE & SCSI Hard Drives and Mounting Kits

PC/XT/AT and Compatibles

- IDE drives over 528MB require EIDE controller or higher
- Manufacturers may vary and capacity may exceed specification; we carry Seagate, Western Digital, IBM and others.
- All are 1" in height, except as noted


124978CF

180857CF




117217CF

Part No.	Capacity	Description	Conn. Pins	Wt. (lbs.)	Average Access Time (ms)	Warranty	1	10
200803CF	17.2GB	3.5" IDE	40	1.1	9.5	3 mos.	~~$154.95~~ $99.95	$94.95
200678CF	15.0GB	3.5" IDE	40	1.1	9.5	3 mos.	~~$149.95~~ 94.95	85.49
200660CF	13.0GB	3.5" IDE (ATA-4)	40	1.1	9.5	3 mos.	144.95	129.95
200651CF	10.2GB	3.5" IDE	40	1.1	9.5	3 mos.	139.95	125.95
162261CF	8.45GB	3.5" EIDE (Ultra DMA33)	40	1.2	9.5	1 year	139.95	125.95
151052CF	6.4GB	3.5" EIDE (Ultra DMA33)	40	1.1	9.5	1 year	129.95	116.95
151044CF	4.3GB	3.5" EIDE (Ultra DMA33)	40	1.1	11.5	1 year	119.95	109.95
151036CF	3.2GB	3.5" EIDE (Ultra DMA33)	40	1.1	11	1 year	114.95	105.95
146333CF	2.5GB	3.5" EIDE (Fast ATA-2)	40	1.0	11	1 year	99.95	79.99
146325CF	1.7GB	3.5" IDE (Fast ATA-2)	40	1.1	12	1 year	99.95	89.95
124978CF	1.27GB	3.5" IDE	40	1.1	14	1 year	~~$89.95~~ 79.95	71.95
118949CF	850MB	3.5" IDE	40	1.7	14	1 year	84.95	75.95
115764CF	425MB	3.5" IDE	40	1.7	12.5	3 mos.	79.95	71.95
189914CF	9.1GB	SCSI (wide, ultra, SCA)	80	1.4	5.0	3 mos.	~~$199.95~~ 102.55	92.29
188907CF	4.0GB	SCSI (wide, ultra, SCA)	80	1.2	8.1	3 mos.	~~$119.95~~ 53.35	48.55
197579CF	4.0GB	SCSI (Fast SCSI-II) (1.5")	50	1.3	8.0	3 mos.	69.95	62.99
189085CF	1.0GB	SCSI	50	1.3	9.6	3 mos.	39.95	35.95

Part No.	Mfr. Cross Ref. No.	Description	Wt. (lbs.)	1	10	25
180857CF	HDB35	3.5" hard drive mount kit (short)	0.2	$4.95	$3.75	$2.65
117217CF	HDMK	3.5" kit (w/ black & gray faceplates)	0.6	7.95	7.25	6.49

Aluminum IDE Removable Hard Drive Rack with Fan



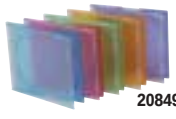
Easily remove a hard drive from your PC or workstation, safeguard your data and an ideal way to back-up data. Because rack kit is hot removable, you can remove your hard drive without shutting down your computer operations. Aluminum case transfers heat away from the drive for longer & more reliable drive life.

- 5.25" rack kit for 3.5" hard drives
- Drive activity LED
- Built-in fan
- Aluminum rack
- Keylock for security

Part No.	Description	1	10	25
211035CF	Rack kit (IDE)	$29.95	$26.95	$23.95

CD Accessories


208485CF


208493CF


208506CF

SALE


76591CF


208514CF

Part No.	Description	1	10	100
172179CF	Single jewel case	$.40	$.36	$.31
208514CF	Paper envelope 25 pk.	2.49	2.19	1.99
208506CF	Clamshell case 10 pk.	~~$3.99~~ 2.75	2.49	2.25
208485CF	Slim black 10 pk.	~~$3.99~~ 3.59	3.19	2.89
208493CF	Slim asst. color 10 pk.	4.95	4.45	3.95
76591CF	Caddy	~~$5.95~~ 3.49	3.15	2.85

Internal IDE CD-ROM Drives

- 5.25" half-height design
- One-year warranty
- Manufacturer varies

Includes: Audio cable


189448CF

Part No.	Speed	Buffer	kB/sec.	Wt. (lbs.)	1	10
149307CF	24x	256kB	3600	2.6	~~$49.95~~ $34.95	$32.95
189051CF	32x	128kB	4800	2.6	34.95	31.49
189069CF	40x	128kB	6000	2.6	39.95	35.95
189077CF	48x	128kB	7200	2.6	49.95	44.95
189448CF	56x	128kB	8400	2.3	59.95	53.95

CD-ROM Audio Cables


127546CF


168612CF

- 2 x 28 AWG

127546CF: Compatible w/ most CD-ROMs

168612CF: • 3 connectors on each end of wire:
4-position (.100") housing connector;
4-position (.100") Molex-type keyed connector;
3-position (.100") Molex-type keyed connector

- Use with Creative Labs, Sony or generic sound cards

Part No.	Connection from Sound Blaster to	Length	1	10	50
127546CF	Sony/MPC2	25"	$2.95	$2.65	$2.29
168612CF	Universal	18"	4.95	3.99	3.29

We'll Send It Today!

Don't worry about backorders.
Over 99% of our products are in stock!
Place your order by 6PM EST for same business day shipment.

Computer

Intel AnyPoint Home Network on page 179

Fellowes Premium Confetti-Cut Personal Shredder





Shredded pieces (Confetti-cut)

When it's time to discard sensitive memos, bank statements, accounting records or other confidential business materials, you want to rest assured that they're gone for good. The PS60C-2 features faster throughput, greater capacity and a finer cut so your documents will disappear in short order. Do not let prying eyes poach business records. Let this model's confetti-cutting power turn that stack of confidential paperwork into a handful of scrambled dregs with shredded ease.

Part No.	Description	Price
219176CF	Confetti-cut shredder (refurbished)	$49.95

Fellowes Personal Strip-Cut Shredder





Shredded pieces (Strip-cut)

Protect yourself from prying eyes and "dumpster divers" with a personal shredder that's packed with features. The P500-2 is designed to go anywhere you need it. Auto-start and stop means you can feed in up to 7 sheets at a time (staples, paper clips and all!) with one-handed ease; no fumbling for a switch. And at this price, you can turn every wastebasket in your home or office into a maximum security receptacle.

Part No.	Description	Price
219184CF	Personal strip-cut shredder	$9.95

Laserjet 2200D Printer



Delivers a feature-packed, internet-enabled, easy-to-use printer and maintains HP's high standard for reliability. The 220 series is the solution that puts quality, performance, and value in the same package. Fast print speed with true 1200 dpi printing provides superior print quality, instant on-fuser eliminates warm-up time, large memory, fast processor, and a high monthly duty cycle deliver the best performance for small workgroups. Allows point-and-print wireless printing from portable PCs, PDAs, and cell phones without special drivers.

- 250 sheet tray capacity, adjustable tray for letterhead, envelopes, labels, transparencies and custom sized print media
- True 1200 x 1200 dpi text and graphic printing
- Two output bins: top or rear output selectable for convenience
- Built-in duplexer for dual side printing
- Parallel, USB, (FIR) fast infrared port, or network connection
- 19ppm using standard letter size
- 8MB RAM standard expandable to 72MB (2 slots for fonts or memory upgrade); 1 (EIO) enhanced input/output port for network connection
- Size: 13.2"H x 16.0"W x 17.1"D
- Fast printing performance, built-in intellifont and true type scaling technology
- Weight: 35.9 lbs.
- (RET) resolution enhancement technology adjusts the size and placement of each dot
- Compatible with Windows® 3.1x/95/98/2000/ME/NT40/XP or MAC system 7.5.5 or above

Includes: Power cable, CD-ROM drivers and manual

Part No.	Description	1	5
228718CF	HP Laserjet 2200D	$529.95	$505.45
236136CF	C4096A Ink Cartridge	127.49	—
235061CF	Print server I/O port	335.95	—

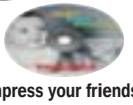
CDPrint Printer



Delivers a low-cost way to create professionally printed CD-R's, Credit Card CD-R's, CD Jewel case liner notes and standard color paper documents. Don't settle for unsightly felt pen scribbles or hard-to-use labels on your CD's. Now print full color images, photos, and text directly on your CD in less than a minute. EZ/CDPRINT is ideal for amateur musicians, family photos, school projects, customer presentations, interactive training or anywhere an extra edge of professional presentation counts.



Home Photos/Music



Impress your friends



No more messy handwritten CD's



- Compatible with all inkjet printable CD-R & DVD-Rs
- Prints a full color CD in about a minute
- Special PC and Mac software and templates to print CD, liner notes and more
- Both USB and parallel port connections
- Uses standard C60/C62 Epson inkjet cartridges
- Prints paper documents at 12ppm monochrome & 7ppm color
- Printer size: 18.0"W x 8.0"D x 7.0"H

Requires: Windows® 95/98/2000/ME/XP, Mac OS 8.1 or higher operating systems

Includes: Printer, PC and Mac printer and template software, three printable disks

Part No.	Description	Price
220708CF	CD/paper printer	$319.95
220716CF	100 pk. 40x 700MB 80 min. CD-R	42.95

Jacob Jensen Designed Phone – By Enzer

"Phones must be functional, but who said they should not look great?"

Enzer Electronics has positioned itself as a leader in the telecommunications technology industry that emphasizes the beauty and design of its products. The perfect blend between technology and visual arts will satisfy both your senses and your emotions. They offer more than just technology—it's about innovation and intelligent ideas that defy your expectations! Jacob Jensen, the world famous designer who has won over 100 international prizes and 18 of his works exhibited at the Museum of Modern Art in New York has teamed up with Enzer to bring you beauty and functionality in phones for your business or home office.



Image of Jacob & son



227125CF

227125CF 2 one-touch memory, 10 two-touch memory, mute/flash/pause function, ringer volume (Hi/Low), last number redial, desktop/wall mountable

227141CF One-touch memory, ringer melody control (3 melodies), 10 two-touch memory, mute/flash/pause function, ringer volume (Hi/Low), last number redial, desktop/wall mountable



227141CF



227133CF

227133CF 10-digit LCD display, 3 one-touch memory, 10 two-touch memory, mute/ flash/pause function, ringer volume (Hi/Low), last number redial,desktop/wall mountable



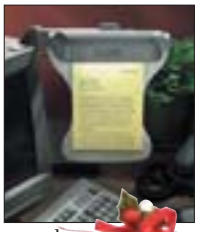
227150CF 3-line alphanumeric LCD backlight display; Caller ID; 3 direct and 10 redial memory; last number redial; 66 caller ID memory; 77 phone book memory; display of caller's phone number, time, and date simultaneously; 11 language operation; two-way speaker phone; FSK/DTMF/Dual mode selectable; desktop/wall mountable



227150CF

Part No.	Description	Price
227125CF	Desktop/wall mountable phone	$79.95
227133CF	Desktop/wall mountable phone w/ LCD	109.95
227141CF	Desktop/wall mountable phone (3 ringer melodies)	$59.95
227150CF	Desktop/wall mountable phone w/ LCD and Caller ID	99.95

Glare Free Document Light and Holder



This ergonomically-designed document light and holder reduces glare, while creating a well-lit work area. Optometrists recommend the Eclipse Document Light, especially if you work for more than two hours a day. Attaches to either side of your computer monitor. Secure the cord to the back of the computer for clutter-free desk, turn on the energy efficient 10,000-hour bulb, and you will immediately notice the difference. Swings out of the way when not in use; adjustable height. Contemporary design blends in with any office decor.

Part No.	Description	Price
224311CF	Glare free document light and holder ...	$29.95

Glare Free Eclipse Executive Computer Light

Give your eyes a break!



The Eclipse Executive Computer Light helps prevent glare, which is a cause of eyestrain. Ergonomically designed and attaches to the top of your monitor providing glare free indirect lighting. Reduces headaches, eyestrain, and over all fatigue while you work.

- Mounts easily to monitors
- Low energy usage
- 13-Watt fluorescent bulb (included) last up to 10,000 hours
- Detachable power cord
- 110V@60Hz
- Size: 10"L x 4"W x 8"H
- Silver graphite color
- Five-year limited manufacturer's warranty

Part No.	Description	Price
224303CF	Eclipse Executive Light ...	$38.49

USB Color Video Camera



- Plug & Play compatible
- Sensor: 1/3" CMOS
- 640 (H) x 480 (V) pixels
- Minimum illumination: less than 15 lux
- Integrated lens: F2.0
- Resolution and output performance: VGA (640 x 480) up to 10 frames per second
- Size: 3.6"L x 2.1"W x 2.0"H • Weight: 0.4 lbs.

System requirements: Pentium® 166MHz, 16MB of RAM, Windows® 98, USB port

Includes: CD-ROM drivers

Part No.	Description	1	10
204134CF	USB color video camera ...	~~$49.95~~ $22.25	$20.25

ISA 16-Bit VGA Card



- Supports 16 colors; requires 1MB video RAM
- Supports VESA standard graphics and text modes
- Emulates VGA, EGA, CGA, MDA & Hercules modes
- 1024 x 768 resolution in non-interlaced/interlaced modes • Output HDDB15 female (analog)
- On board memory

Requirements: IBM AT and higher compatibles

Includes: Software and manual

Part No.	Description	1	10	25
104660CF	VGA card	$49.95	$44.95	$39.95

PCI Graphics Accelerator Card



- High performance SIS6326 8MB PCI graphics accelerator
- 800K polygon/sec
- Supports texture, transparency, blending, wrapping and mirror, fogging and blending, point sampled, linear & bi-linear texture filtering
- Built-in direct draw accelerator & NSTC/PAL video encoder • 14-bits resolution in IDCT transformation
- Supports per pixel texture perspective correction and Z & alpha buffer
- Size: 5.5"L x 2.5"W • Weight: 0.4 lbs.

Includes: CD-ROM manual and drivers

Part No.	Description	1	10
210833CF	PCI accelerator card	$39.95	$35.95

AverKey *Pro* PC to TV Converter Box



- Converts VGA video or Macintosh® 640 x 480 to standard NTSC
- Built-in flicker filter
- Resolution: 800 x 600
- TV brightness control
- Compatible w/ Microsoft® Windows® 3.0 and higher
- Two-year warranty
- Size: 6.0"L x 4.0"W x 1.0"H • Weight: 2.2 lbs.

System requirements: VGA-based PC, DOS 3.0 or higher, 640kB RAM or larger

Includes: Compact PC to video converter box, transformer, cables and manual

Part No.	Description	1	10
167193CF	Video signal pro	$109.95	$99.95

15" SVGA Color Monitor†



- 0.28mm dot pitch
- Resolution: 1280 x 1024 @ 60Hz
- Digital panel control
- Input voltage: 100-240VAC, 50/60Hz (auto switching)
- Power, contrast, brightness, horizontal and vertical size position, recall and trapezoid front control
- HDDB15 male connector • UL/CSA/TUV approved
- Size: 14.5"W x 16"D x 14.6"H
- Weight: 45 lbs. † Refurbished

Requirements: IBM PC/XT or higher compatibles

Includes: Power cable, tilt and swivel base

Part No.	Description	1	10
153306CF	13.5" monitor viewable †	$99.95	$89.95

14" SVGA Color Monitor†



- 13" diagonal view
- 0.28mm dot pitch
- HDDB15 male connector
- Power, contrast, brightness, horizontal and vertical position, recall and trapezoid knob adjustments
- Resolution: 1152 x 864 @ 60Hz
- Input voltage: 100-240VAC @ 50-60Hz
- Size: 14.2"W x 14.6"D x 13.5"H
- Weight: 25 lbs. † Refurbished

Requirements: IBM PC/XT or higher compatible

Includes: Power cable, tilt and swivel base

Part No.	Description	1	10
174537CF	13" monitor viewable †	$69.99	$64.99

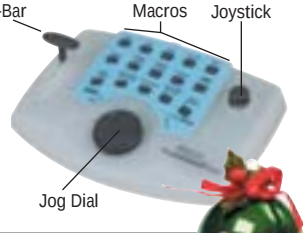
PC Monitor Power Cables



- Allows connection of monitors directly to standard IBM type power supplies
- Monitor turns on/off automatically via system power switch
- IBM PC/XT and higher compatibles
- See page 49 for more power adapter cables

Part No.	Description	1	10	100
177447CF	1' monitor cable	$2.95	$2.49	$2.15
26382CF	6' monitor cable	~~$3.95~~ 1.65	1.49	1.35

Pro-Video Editing Controller at Breakthrough Price



CommandPost is a pro-quality video-editing controller for your favorite video/multimedia applications at a new breakthrough special purchase price. Working with your favorite video/multimedia applications has never been easier or faster. Now the most popular controls such as jog wheel, fader, etc., from professional non-linear editors, DVEs and DDRs are brought to your desktop. Includes a free copy of VideoWave Version 4.0 video editing software plus templates for most popular video and graphics applications, including Videonics Effetto Pronto, Apple iMovie, Apple Final Cut Pro, Adobe Premiere, Adobe After Effects, and Digital Origin EditDV.



- Concentric jog/shuttle control
- Centering joystick with pushbutton
- Internally illuminated for readability in darkened edit rooms
- Fader arm, 15 tactile push-button switches
- Supports standard or user-defined keysets
- Easy assignment of control sequences and keyset names

System requirements: USB 1.1 compliant PC: Windows® 98 or 2000, Pentium® 133 or higher, 5MB RAM minimum, 8MB minimum hard disk space. MAC: O.S. 8.6 or higher, Power PC, 10MB of RAM minimum, 5MB min. hard disk space

Part No.	Description	Size	Weight	Price
220329CF	CommandPost	1.5"H x 10.0"W x 7.0"D	2.0 lbs.	$29.95

Harman/Kardon Multimedia Amplified System

- 4.5 watt RMS per amplified speaker
- Transducer: 3" full range driver, magnetically shielded
- Frequency range: 90Hz to 20kHz
- Volume control, bass and trebel control, LED indicator and headphone jack • Weight: 4.7 lbs.
- Size: 8.5"H x 4.5"W x 5.0"D (per speaker)



Includes: 16VAC @ 1A power supply

Part No.	Description	1	10
211001CF	H/K speaker system ..... ~~$15.95~~	$12.95	$11.69

Omnidirectional Microphone Headset

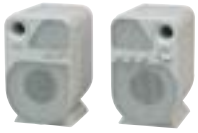
- Frequency range: 20Hz to 20kHz (headset); 50Hz to 16kHz (microphone)
- Impedance: 32Ω
- Maximum power: 100mW
- Sensitivity: 98dB (headset); -62dB (microphone)
- Swivel microphone arm pivot
- Flexible microphone arm
- 6' cord • Two 1/8" phone jacks



Part No.	Description	1	10
153875CF	Microphone headset	$10.95	$9.95

480-Watt Multimedia Speakers

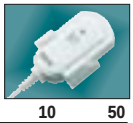
- Input voltage: 120VAC
- 2 speakers
- Magnetically shielded
- 2-channel stereo amplifier
- Push button type power switch with LED indicator
- Knob controls for volume, bass & treble
- Size: 5.5"W x 7.0"D x 9.1"H • Weight: 5.3 lbs.



Part No.	Description	1	10
196066CF	480W speakers	$39.95	$35.95

Hands-Free Condenser Microphone

- Cord length: 8'
- Connector: 3.5mm male stereo plug
- Size: 1.9"L x 1.2"W x 0.3"H
- One-year warranty



Part No.	Description	1	10	50
135247CF	Microphone	$3.69	$3.15	$2.35

Serial Port Complete

Lakeview Research RS-232 & RS-485 are the most versatile, inexpensive interfaces for linking, but the hardware and programming are often misunderstood. This book provides you with everything you need to design, program, install & troubleshoot the links you set up. (306 pages, 1998)

• Size: 7" x 10" • Weight: 1.3 lbs.



Includes: 3.5" diskette

Part No.	Description	Price
154771CF	Serial Port Complete	$39.95

World Famous Boston Acoustics Self-Amplified Speaker and Subwoofer System

The key to this 3-piece outstanding speaker system is the 2 ½" satellite speakers that deliver rich mid and high frequency response. Boston Acoustics employs advanced computer modeling to design drivers that reproduce seven audible octaves with remarkable accuracy and smoothness. The satellite speakers come with their own stand and MagnaGuard magnetic shielding to prevent video interference. The subwoofer delivers a robust room-filling sound that compliments the satellite speaker output.



- Frequency response (±3dB): 56Hz – 20kHz
- Maximum sound pressure level: 104dB
- Cross over frequency: 240Hz
- Master volume/power & sub-woofer volume switch
- Satellite speaker size: 3.3"L x 3.3"W x 3.5"H
- Subwoofer speaker size: 7.8"L x 6.0"W x 7.0"H
- Weight: 6.0 lbs.

Includes: 12VAC @ 2A power supply

Part No.	Description	1	5
213911CF	Speaker/subwoofer system..... ~~$64.95~~	$54.95	$49.95

Mice & Trackballs

PS/2 2-Button No Tail Mouse

Perfect mouse for laptop and mobile power users. Extract cable to desired length in small spaces thus eliminating tangle and loose cables. Cable retracts into the body of the mouse for compact storage and mouse is switchable from PS/2 to serial.



SALE

- Retractable cable for laptop and power notebook users
- Switch selectable from PS/2 to serial mouse
- Adjustable to perfectly fit your limited computer work area
- Size: 4.5"L x 2.4"W x 1.1"H

Includes: PS/2 to serial adapter, retractable RJ11 modem cable, and carrying case

Part No.	Description	1	10
213330CF	PS/2 mouse	$7.49	$6.79

QTRONIX. USB or PS/2 3-Button Optical Wheel Mouse

- Ergonomic style 3-button optical wheel mouse
- High tech optical sensor for all surface types
- Size: 3.9"L x 2.3"W x 1.5"H
- Weight: 0.2 lbs.



System requirements: IBM PC or compatible, Windows® 98/2000/XP, available PS/2 or USB port

Part No.	Description	1	10	25
199591CF	LYNX-LVII	$29.95	$26.95	$24.25

Single Button Apple Mouse

- 275 CPI resolution
- Soft, quick, responsive mechanical click button
- ADB connector
- 29" cord
- Size: 4.8"L x 2.4"W x 1.2"H
- One-year warranty



Part No.	Description	1	10	25
150480CF	Single button	$16.95	$15.49	$13.95

3-Button Serial Mouse

- Microsoft® mouse compatible
- IBM PC/XT and higher compatibles
- Size: 4.3"L x 2.3"W x 1.2"H



Part No.	Description	1	10	50	100
104441CF	Serial mouse	$4.95	$4.49	$4.05	$3.65

PS/2 3-Button Mouse

- Basic 3-button mouse
- PS/2 connector (6-pin mini DIN)
- 48" cord
- High resolution and excellent tracking
- Fully compatible with all operating systems
- Size: 4.8"L x 3.5"W x 1.8"H



Part No.	Description	1	10	50	100
233322CF	PS/2 mouse	$4.95	$4.49	$4.05	$3.65

Trackball with Menu Software

- Detachable wrist support
- Variable resolution (20-6400dpi)
- One million cycle life tactile switches • 3.5" disk
- Ergonomic design
- Size: 5.5"L x 4.6"W x 2.0"H
- Weight: 1.2 lbs.



QTRONIX.

System requirements: IBM PC/XT & higher compatible systems; MS DOS 3.3 or later, Windows® 95 & higher

Part No.	Description	1	10	25
128995CF	LIBRA 90 MP NET	$29.95	$26.95	$24.25

Mini Mouse Pad

- Tough non-skid neoprene backing
- Smooth-gliding cloth surface on top
- Size: 7.0"L x 5.5"W



Part No.	Description	1	10	100
121363CF	Mini mouse pad	$2.95	$2.55	$1.89

Mouse Pad/USB Label Printer

Labeling envelopes, binders and files is one-click easy! This combination mouse pad and mini-printer makes labeling chores simple. Just highlight the text in your document, or type labels directly and your 18mm label pops out, ready-to-use.



- Compatible with Microsoft Windows® 98, 98SE and 2000 Professional PCs.

Part No.	Description	Price
235483CF	Mouse pad label printer	$19.95

Win 95 104-Key Keyboard with Jumbo Trackball



- PC/AT and PS/2 compatible w/ DOS 3.0 or higher
- "N-Key" roll-over for quick typists
- Tactile click sound and feel
- One-year warranty
- Size: 19.0"L x 6.8"W x 1.4"H • Weight: 3.7 lbs.

Includes: Software and AT cable adapter

Part No.	Description	1	10	25
128717CF	Scorpius 35PM/NET	$99.95	$90.95	$84.95

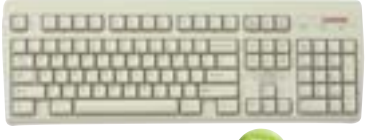
108-Key Compact Keyboard



- IBM PC PS/2 or higher compatible
- Use adapter P/N 85500CF, pg 195 for AT systems
- LED indicator for Num, Caps, and Scroll Lock
- Supports Windows® 98 ACPI keys (wake-up, sleep, power)
- 12 function keys
- High quality rubber mechanical key switches
- Size: 15.5"L x 6.5"W x 1.1"H • Weight: 1.9 lbs.

Part No.	Description	1	10	25
180347CF	Scorpius 2KP	$39.95	$35.95	$32.49

101-Key Keyboard



- For PS/2 systems
- Tactile touch
- LED indicators for Num, Caps, and Scroll lock
- 12 function keys with separate cursor and numeric keys
- Recommend using adapter P/N 85500CF, pg 195 or P/N 159089CF, pg 204
- Size: 18.3"L x 6.5"W x 1.3"H • Weight: 3.6 lbs.

Part No.	Description	1	10	25
191530CF	101-key keyboard	$19.95	$16.99	$12.75

Parallel Port Complete



Lakeview Research A practical, hands-on approach to PCs and their connections to parallel ports. This state-of-the-art book offers many tips on how to get the most out of your parallel port. Enhanced (EPP) and extended capabilities (ECP) types are covered. (343 pages, 1999)

- Windows® 3.1 and Windows® 95
- PC to PC links • Selecting cables
- Size: 7.0" x 10.0" • Weight: 1.4 lbs.

Includes: 3.5" diskette

Part No.	Description	Price
138261CF	Parallel Port Complete	$39.95

Space Saver Keyboards

Full featured AT & PS/2 mini keyboards save valuable desktop space.



Mini Keyboards save up to 30% desk space!

Standard Keyboard

114868CF



199718CF

199718CF: 83-key keyboard

- For PS/2 systems
- Auto repeat
- N-key rollover
- Size: 12.8"L x 6.2"W x 1.0"H
- Weight: 1.9 lbs.



211756CF

114868CF: 84-key keyboard

- For AT systems, designed for Windows® 95
- Size: 12.8"L x 6.6"W x 1.0"H
- Weight: 2.4 lbs.

211756CF: 88/89-key keyboard w/ touch pad

- For AT systems, designed for Windows®
- Built-in touch pad and embedded keyboard
- Soft touch membrane contact
- Size: 11.4"L x 8.5"W x 1.2"H • Weight: 2.3 lbs.

Part No.	Description	1	10	25
199718CF	83-key PS/2	$49.95	$44.95	$38.95
114868CF	84-key AT ~~$66.99~~	49.95	44.95	38.95
211756CF	88/89-key AT	59.95	53.95	48.95

Win 95/98 107-Key PS/2 Red Keyboard



195821CF SALE

- Tactile key stroke with high quality rubber mechanical switch • Adjustable tilt mechanism
- Opaque red or blue top cover & clear bottom cover
- IBM PS/2 and higher compatible
- Designed for Windows® 98 with ACPI keys (wake, sleep, and power) • Windows® 95 compatible
- Use adapter P/N 85500CF, pg 195 for AT systems
- Size: 18.6"L x 6.5"W x 1.1"H • Weight: 2.0 lbs.

Part No.	Product No.	1	10
195821CF	Scorpius 98A Red ~~$12.95~~	$7.95	$6.45

Win 95 104-Key Keyboard



- For PS/2 systems
- Unmarked window keys
- LED indicators for Num, Caps and Scroll Locks
- 12 Function keys w/ separate arrow & numeric keys
- Tactile feedback • Tilt mechanism
- Size: 18.2"L x 7.0"W x 1.5"H • Weight: 2.7 lbs.

Part No.	Description	1	10	25
173649CF	104-key keyboard	$12.95	$9.75	$6.85

Win 95 104-Key Keyboard



SALE

- IBM PS/2 and higher compatibles
- LED indicator for Num, Caps and Scroll Locks
- Tilt mechanism • Ergonomic style
- 12 function keys • Tactile key
- Use adapter P/N 85500CF, pg 195 for AT systems
- Size: 18.5"L x 7.0"W x 1.0"H • Weight: 2.7 lbs.

Part No.	Description	1	10	25
135482CF	104-key keyboard ~~$14.95~~	$6.29	$5.49	$4.99

Keypads

- Tactile click-sound and touch
- 2-key rollover
- Auto repeat function
- One-year warranty

129357CF: 22-key serial

- Serial DB9 connector
- Size: 6.2"L x 4.2"W x 1.3"H
- Weight: 0.8 lbs.



129357CF

System requirements: IBM PC/XT or higher compatibles; and MS DOS 3.X

Includes: 3.5" driver diskette and manual



151811CF

151811CF: 17-key PS/2

- Switch life of 20 million cycles
- Installs into 6-pin mini DIN keyboard connector (no software required)
- Size: 5.6"L x 3.4"W x 0.9"D

Part No.	Description	1	10	25
129357CF	Scorpius 22RW	$39.95	$35.95	$32.49
151811CF	Scorpius 20PB	34.95	31.49	27.95

Wireless RF Keyboard and 3-Button Scroll Mouse



Stop struggling with cords that catch and tangle. It provides the performance of corded peripherals without needing a clear path or pointing the mouse and keyboard at the computer. This convenient and compatible keyboard provides one-touch Internet access. Simply plug-in the receiver to your PS/2 interfaces.

Keyboard: 104/105 keys enhanced Windows® layout

- 16 internet/media hot key • 27MHz wireless radio frequency

3-Button Scroll Mouse:

- Opto-mechanical technology + 27MHz wireless radio frequency • Resolution: 400 dpi

System Requirements: 2 PS/2 ports, CD-ROM, sound blaster compatible card, Windows® 95/98/2000/ME/NT

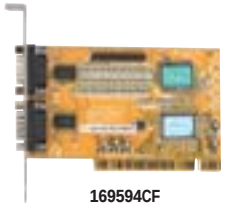
Includes: 4-AA for receiver and mouse; user's guide, and CD-ROM software

Part No.	Description	Price
233381CF	RF Wireless keyboard and mouse	$29.95

PCI Ultra High-Speed I/O

Serial 16C550 and Parallel Port

- 32-bit PCI bus with PCI bus 2.1 specification compliant
- Serial ports are software configurable with throughputs up to 921.6kbps
- BPP/SPP mode compliant
- Windows® 95/98/NT 4.0 drivers supported



169594CF

169594CF: 2 serial DB9M on card and 1 parallel DB25F panel bracket assembly

Part No.	Description	1	10
146691CF	Single parallel ~~$44.95~~	$39.95	$35.95
163707CF	Dual parallel	49.95	44.95
146667CF	Dual serial (16C550) ~~$48.95~~	38.95	36.95
169594CF	2 serial (16C550) and 1 parallel	59.95	53.95

PCI High-Speed I/O Combo Card

2 Serial 16C650 and 1 Parallel ECP/EPP Ports

- 16C650 UART compatible
- 2 ultra high-speed RS-232 ports and 1 high-speed ECP/EPP parallel port
- Serial port transfer rate up to 921kB/sec. and parallel port up to 2MB/sec.
- 32-byte FIFO buffer
- Supports IRQ sharing
- 32-bit PCI interface
- Plug & Play ready
- 2 DB9 male & 1 DB25 female connector w/ bracket
- Size: 4.7"L x 2.9"W • Weight: 0.6 lbs.



System requirements: 486/586 and higher compatibles; Windows® 95/98/NT/2000

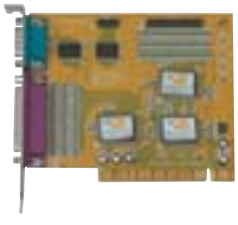
Includes: Manual, DB25F panel bracket assembly and drivers on CD-ROM

Part No.	Description	1	10
172013CF	2 serial/1 parallel ~~$59.95~~	$53.95	$48.59

PCI 4-Port I/O

2 Serial 16C650 and 2 Parallel ECP/EPP/SPP/BPP Ports

- Plug & Play compliant
- Serial port: SUN1889 chipset; 32-byte FIFO; compatible with 16C450/550/650 chip; RS-232 IEEE standard interface; 921kb/sec. transfer rate
- Parallel port: SUN1689 chipset, 32-byte FIFO; ACC3203/ST78C36/HT6535 compatible chips; ECP/EPP/SPP IEEE standard interface; 2Mb/sec. transfer rate
- 2 DB9 male connectors and 2 DB25 female connectors
- Size: 4.7"L x 3.6"W • Weight: 0.8 lbs.



System requirements: 486/Pentium® & higher comp. Windows® 95/98/NT/2000; available PCI slot

Includes: Manual, cable and CD-ROM drivers

Part No.	Description	1	10
173260CF	PCI 4-port ~~$59.95~~	$53.95	$48.59

PCMCIA RS-232 Interface

PC card/PCMCIA-based serial port card.

- Low cost single port RS-232 interface
- Uses 16550 UART
- 5, 6, 7 or 8 data bits
- Odd, even or no parity
- 115k baud data rates
- Configured as COM1, COM2, COM3 or COM4
- PCMCIA type II compliant



Includes: 1' cable

Part No.	Description	1	10
164451CF	PCM-COM232 card	$119.95	$104.95

Bidirectional Serial/Parallel Converter

115.2kbps, 512kb Buffer

- One DB25 female connector, one Centronics 36-pin male connector
- DCE/DTE selectable
- Fully compatible with Windows® 95
- Baud rate: 300bps – 115,200bps
- FCC class A certified, CE certified
- LED indicator for parallel busy status
- Stop bits: 1 or 2 • One-year warranty
- Size: 3.8"L x 2.4"W x 1.0"H • Weight: 0.8 lbs.



Includes: 9VAC @ 200mA adapter

Part No.	Description	1	10	50
182983CF	Converter	$54.95	$49.95	$45.95

16-Bit Active-Slot PC Extension Interface

Gives you three additional expansion slots.

- Compatible with 8 or 16-bit ISA cards
- Supports: MONO/EGA/ VGA/FDC/HDC, game and most I/O
- Control card installs inside your PC with four external slots
- Two mounting brackets to interface the unit via 37 and 62-pin cables
- Isolates system providing short circuit protection
- Can insert and remove cards while power is on
- Can be powered off the PC or externally using 6-pin connection (P/N 78318CF & P/N 78326CF, pg 129)
- One-year warranty
- Size: 9.5"L x 6.8"W x 1.0"H • Weight: 5.5 lbs.



System requirements: IBM PC/XT and higher comp.

Part No.	Description	1	10
131238CF	PC slot extender unit	$279.95	$251.95

30-Day Money Back Guarantee

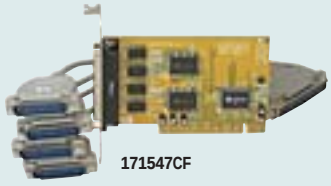
If you're not completely satisfied with your purchase, we'll take it back!

Details on page 226.

PCI High-Speed Multi-Port Serial I/O

2, 4 or 8 16C650 Serial Ports

- 32-byte FIFO
- Plug & Play compatible
- Standard RS-232 interface
- Transfer rate: up to 921kb/sec.
- Supports IRQ sharing



171547CF

172005CF: Dual 16C650 Serial Ports
- Two DB9 male connectors
- Size: 4.7"L x 2.8"W • Weight: 0.5 lbs.

Includes: Manual and drivers on CD-ROM and floppy

171547CF: Quad 16C650 Serial Ports
- Size: 4.7"L x 2.8"W • Weight: 0.9 lbs.

Includes: Manual, cable (37-pin male to 4 DB25 male) and drivers on CD-ROM

171660CF: Eight 16C650 Serial Ports
- Size: 6.5"L x 3.6"W • Weight: 1.8 lbs.

Includes: Manual, internal cable with bracket, 2 cables (37-pin male to 4 DB25 male) and drivers on CD-ROM

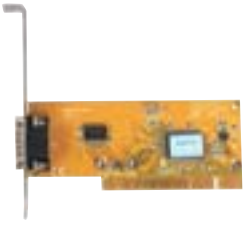
System requirements: 486 and higher compatibles, Windows® 95/98/NT/2000

Part No.	Description	1	10
172005CF	2-port PCI serial	$59.95	$53.95
171547CF	4-port PCI serial	129.95	116.95
171660CF	8-port PCI serial	179.95	161.95

PCI Single-Port Serial I/O

Single 16C550 Port

- Plug & Play ready
- Transfer rates up to 921kb/sec.
- 32-bit PCI bus interface
- 32-byte FIFO
- Supports IRQ sharing
- Size: 4.8"L x 1.8"W
- One-year warranty



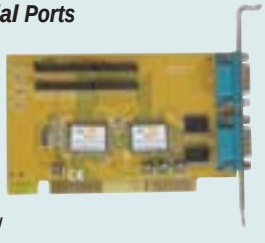
System requirements: 486/Pentium® and higher compatibles; Windows® 95/98/NT/2000

Part No.	Description	1	10
171361CF	Single serial	$38.95	$35.95

ISA 2-Port High-Speed Serial I/O

Dual 16C650 Serial Ports

- 32-byte FIFO
- IRQ (3, 5, 7, 9, 10, 11, 12, 15) and address jumper configurable
- DB9 male connector
- Size: 5.0"L x 2.0"W



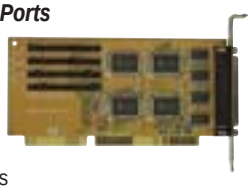
System requirements: 486/586 or higher compatibles, Windows® 95/98/NT

Includes: Manual and drivers on CD-ROM

Part No.	Description	1	10
172380CF	Dual serial	$19.99	$18.99

ISA High-Speed 4-Port Serial I/O

Quad 16C650 Serial Ports



- 32-byte FIFO
- 16-bit ISA interface
- MS-DOS, Windows® 3.x, 95 and NT compatible
- Four 16C650 ultra high-speed serial ports
- Supports COM 1-8 & IRQs 3-15 (jumper selectable)
- One-year warranty
- Size: 6.2"L x 4.3"W
- Weight: 1.2 lbs.

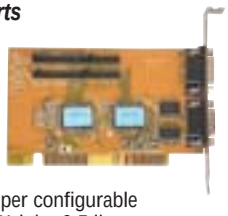
System requirements: IBM PC/AT & AT compatibles

Includes: 37-pin male to 4 DB25M cable and manual

Part No.	Product No.	1	10
152291CF	4042A	$54.95	$49.95

ISA 2-Port High-Speed Serial I/O

Dual 16C550 UART Ports



- 16-byte FIFO
- Transfer rates up to 921kb/sec.
- Dual high-speed serial ports
- 2 DB9 male connectors
- IRQ (3, 5, 7, 9, 10, 11, 12, 15) and address jumper configurable
- Size: 5.0"L x 2.7"W
- Weight: 0.5 lbs.

System requirements: 486/586 and higher compatibles; Windows® 95/98/NT/2000

Includes: Manual and drivers on CD-ROM

Part No.	Description	1	10
171555CF	Dual serial	$24.95	$21.85

ISA 4-Port Serial I/O

Quad 16C550 Serial Ports



- High-speed 16C550 UARTs with 16 or 32-byte FIFO
- 4 serial ports; 2 each DB9M and DB25M
- IRQs: 3, 4, 5, 9, 10, 11, 12, or 15
- Supports IRQ sharing
- Weight: 0.7 lbs.
- One-year warranty

COM Address		COM Address	
1	3F8	5	3F0
2	2F8	6	3E0
3	3E8	7	2E0
4	2E8	8	260

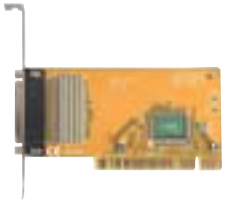
System requirements: IBM AT & higher compatibles

Includes: DB25 male and DB9 male panel bracket assembly and instruction sheet

Part No.	Description	1	10
132572CF	4-port hi-speed serial	$59.95	$53.95

PCI Ultra High-Speed Parallel

Single Ultra High-Speed Port



- Supports ECP and EPP
- 32-byte FIFO
- Transfers data up to 2MB/sec.
- Supports IRQ sharing
- Plug & Play ready
- 1 DB25 female connector
- 32-bit PCI interface
- Size: 4.7"L x 2.2"W
- Weight: 0.5 lbs

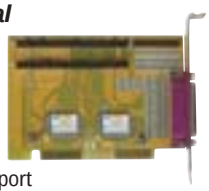
System requirements: 486/586 and higher compatibles; Windows® 95/98/NT/2000

Includes: Manual and drivers on CD-ROM

Part No.	Description	1	10
171926CF	PCI single parallel	$39.95	$35.95

ISA 2-Port Parallel

21.4MB/Sec. Bidirectional



- Supports EPP/ECP/ SPP+BPP/ECP+BPP
- Supports 770kB/sec. transfer rate in EPP/SPP/BPP modes
- IRQ: 3/4/5/7/9/10/11/12/15 and address selectable per port
- Compatible with color printers, scanners, plotters, ZIP drives and MP3 players
- 1 external DB25 female connector and 1 internal 26-pin male header
- Weight: 0.6 lbs.

System requirements: 75MHz or higher compatible, 32MB RAM, 16-bit ISA slot, Windows® 95/98/ME/NT/2000

Part No.	Description	1	10	25
132214CF	2-port printer	$29.95	$26.99	$24.29

ISA Single-Port Parallel

Single Bidirectional Parallel Port



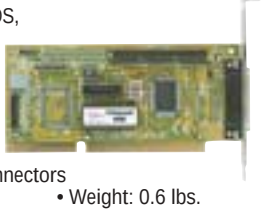
- Single standard and bidirectional port
- Jumper selectable for printer address and port (LPT1 - LPT3)
- Jumper selectable for IRQ addressing (3, 4, 5, 7, 9)
- Size: 4.0"L x 2.0"W
- One-year warranty

System requirements: PC/XT/AT and higher

Part No.	Description	1	10	25
155660CF	Printer card	$19.95	$17.95	$14.95

Controller Cards

ISA Fast SCSI-II Controller



- Compatible with DOS, Windows®, Windows® NT, Windows® 95, OS2 Netware, and SCO Unix
- Internal and external SCSI-II connectors
- Size: 6.3"L x 2.9"W
- Weight: 0.6 lbs.
- One-year warranty

Includes: Setting sheet, ribbon cable, and software (3.5" disk)

Part No.	Description	1	10
149294CF	ISA SCSI-II controller	$44.95	$39.95

PCI Ultra-II SCSI Controller

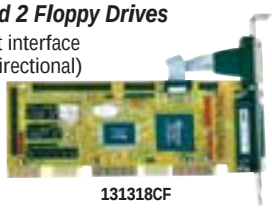


- AIC-7890AB chipset
- Windows® 95/NT, NetWare, OS/2 compatible
- Plug & Play design
- Internal and external Ultra-II SCSI 68-pin connectors
- Supports Ultra-II SCSI peripherals at speeds up to 80Mbytes/sec. or Ultra/UltraWide peripherals up to 40Mbyte/sec.
- Supports up to 15 SCSI peripherals
- Size: 6.0"L x 3.5"W
- Weight: 0.3 lbs.

Part No.	Description	1	10
191513CF	Ultra-II SCSI ~~$149.95~~	$105.49	$94.95

ISA IDE Super 16-Bit I/O Plus

Supports 2 IDE and 2 Floppy Drives



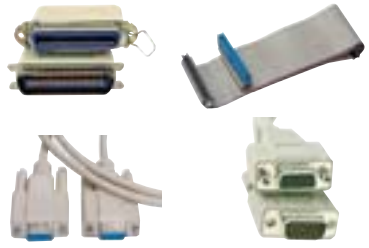
131318CF

- Parallel printer port interface (P/N 131318 is bidirectional)
- Game port
- Two RS-232 serial ports
- UART emulation: **67061CF:** 16450; **131318CF:** 16550
- Weight: 0.9 lbs.
- One-year warranty

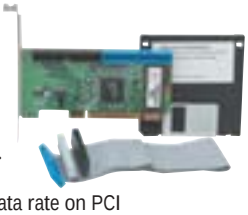
Includes: Manual and cables

Part No.	Description	1	10
67061CF	16450 UART I/O	$14.95	$13.49
131318CF	16550 UART I/O	29.95	26.95

Computer Cables on pages 182 & 194



PCI Ultra ATA/133 Controller Card



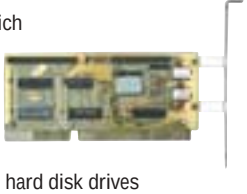
Supports IDE devices to transfer data at maximum burst rate of 133Mbytes/sec. Backward compatible with all ATA/66 and ATA/100 IDE devices.

- Supports 4 IDE devices
- 133Mbytes/sec burst data rate on PCI local bus and IDE bus
- Enhanced BIOS on board
- Widest range of compatible IDE/ATAPI devices
- Supports Windows® 98/ME/NT4.0
- Size: 5.2"L x 2.5"W

Includes: 80-wire/40-pin cable, 3.5" drivers & manual

Part No.	Description	1	10
208021CF	Ultra ATA/133 controller ~~$49.95~~	$44.95	$39.95

ISA Controller Card



- 16-bit data transfer which is fully compatible with IBM PC/AT interface
- Supports two floppy disk drives (360k, 720k, 1.2Mb, 1.44Mb)
- Controls two "AT BUS" hard disk drives
- High bandwidth host interface works up to 16MHz host I/I clock
- Size: 5.5"L x 2.1"W

Part No.	Description	1	10
206316CF	ISA controller card	$19.95	$17.95

Color Code Legend: New Sale Dry Save Closeout

onset computer corporation H8 Portable Data Loggers

Temperature/Relative Humidity/Light Intensity/External Sensor Input



194061CF



194095CF

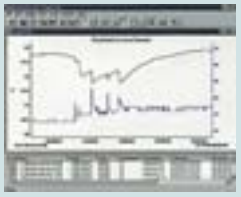
- Sensors included (except external sensor input)
- External input accepts external temperature sensors, AC current, 4-20mA and 0-2.5 VDC
- Requires BoxCar software, right
- Capacity: 7943 measurements total except 194108CF is 32,520 measurements total
- User selectable sampling intervals 0.5 sec. to 9 hours; recording time to one year
- Nonvolatile EEPROM memory retains data even if battery fails
- Internal temperature sensor on 4" wire can extend from case
- User replaceable battery lasts one year
- Programmable start time/date
- Operating ranges: -4˚F to +158˚F (temperature), 0 to 95% relative humidity (non-condensing, non-fogging), 2 to 6000 foot candles light intensity (lumens/ft²)
- Size: 2.4"L x 1.9"W x 0.8"D

194061CF/194079CF: 2 channel
194108CF/194095CF: 4 channel

Part No.	Product No.	Description	1	10
194061CF	H08-002-02	Temperature/external input	$63.95	$59.95
194079CF	H08-003-02	Temperature/relative humidity	83.95	79.95
194108CF	H08-006-04	External inputs	94.95	85.45
194095CF	H08-004-02	Temperature/relative humidity/ light intensity/external input	93.95	89.95

BoxCar Software for Hobos

BoxCar 3.7 provides basic launch, data readout, plotting and data export capabilities. BoxCar Pro 4.0 is a powerful enhanced version of BoxCar 3.7, offering added features for graphing, data analysis and simultaneous management of multiple loggers.



194167CF

onset computer corporation

Easy Logger Set-up:
- Select from predefined or custom sampling intervals (0.5 seconds to 9 hours)
- Set start time and memory modes
- Check battery status
- Export data to Microsoft Excel

BoxCar 3.7:
- View data in tabular and graphical formats
- Display multiple plot windows at once

BoxCar PRO 4.0:
- Powerful graphing capabilities allows user to compare multiple parameters on one graph
- Zoom and axis control data
- Analysis functions to extract key
- Other features include long file names, print preview, print graphs and series details

Part No.	Product No.	Description	1	10
194159CF	BC3.7-ON	BoxCar 3.7	$13.95	$13.30
194167CF	BCP4.0-ON	BoxCar PRO 4.0	94.95	89.95

Industrial Communications

ATEN RS-232 to RS-485/422 Bidirectional Converters



117701CF

- Cable length: 4000' max.
- Data rate: 1MB/second
- 4-wire full duplex or 2-wire half duplex
- Controlled by RTS signal
- DCE and DTE selectable
- Point-to-point and multidrop operations
- RS-485: terminal block and RJ11 connections
- RS-232: DB25 female connector
- Input: 110VAC; except P/N 129218CF 220VAC input
- Weight: 0.9 lbs.
- One-year warranty

Now a European Version!

197931CF: port powered
- Data rate: 100kbps

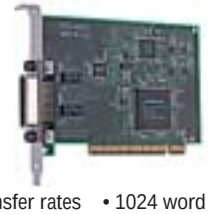
122956CF: features RS-485SI optical isolation: 2000V

129218CF: features 220VAC input

Includes: 9VDC @ 300mA power adapter

Part No.	Description	1	10
117701CF	RS-232-485/422	$57.95	$51.95
197931CF	RS-232-485/422	69.95	62.99
122956CF	RS-232-485/422 OPT ISO	119.99	107.99
129218CF	RS-232-485/422 (220 VAC)	42.95	36.95

PCI GPIB IEEE-488.2 Board



PCI Bus
- 1 MB/s transfer rates
- 1024 word FIFO buffer

Part No.	Mfr. Cross Ref. No.	1	10
177121CF	PCI-GPIB-1M	$398.95	$358.95

ISA 48-Bit Digital I/O Card

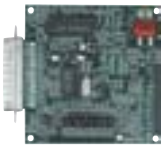


- 48 TTL/DTL I/O lines; 8-bit ports
- Software programmable
- Interrupts: jumper-selectable to IRQ 2, 3, 4, 5, 6 or 7
- Buffer for high sinking capacity
- Added pull-up resistor: CMOS/DRY CONTACT compatible
- ISA bus
- IBM PC/XT and higher compatible
- Size: 10.2"L x 3.9"W
- One-year warranty

Part No.	Description	1	10
136784CF	48-bit digital I/O card	$109.95	$98.99

Single Board Precision DVM

Designed for simple programming and parameter changing. With its on-board ALD500 and ALD523 chipset, running on a standard 5VDC power source, you have an economical, high-resolution digital voltmeter. Interfaces with most industry standard 16 x 2 LCD / VFD character display modules via 14-pin direct cable connection. With its on-board 1K EEPROM, you can calibrate and program the unit through a parallel port.





Software



Display

- 3½ to 6½-digit display resolution
- Up to 7 full digits plus sign (±9999999) display
- For embedded system applications
- Up to 3 sets of full scale display ranges
- Provisions to convert/scale any DC voltage to user-defined DISPLAY parameters
- Extra port to convert/scale serial digital input date to user-defined DISPLAY parameters
- Software/instructions diskette
- Compatible with P/N 171715CF (pg 93)
- Board size: 3.0"L x 3.0"W

SALE

Part No.	Product No.	1	10
208653CF	MB203A2V ~~$109.95~~	$94.85	$85.95



See page 105 for sensors.

We'll match the advertised price of any like product.

Jameco's Low-Price Guarantee

It's that simple!

Computer

Digital Data Acquisition and Control Board

- 8-channel A-to-D • 12-bit resolution
- ±5V input range • Z_{in}: 50MΩ
- Software available, see right

Includes: InstaCal: installation and test utilities software

PCI Bus

- Digital I/O: 3 input/4 output
- Three 16-bit counters
- 50kHz sample rate
- Data transfer: S/W polled, may be IRQ driven
- For terminal board, enclosure and cable, see below



Part No.	Product No.	1	5
193922CF	PCI-DAS08	$247.95	$222.95

Opto-Isolated Digital Input and Relay Output Board

- PCI Bus
- Input range: 5-24VDC or VAC, 50-1000Hz; Rin: 450Ω
- 8 relay outputs: 5 form-C, 3 form-A (28VDC @ 6A, 120VAC @ 5A; contact R = 100mΩ)
- Opto-isolated inputs: 500V isolation channel-to-channel and channel-to-ground
- For terminal board, enclosure and cable, see below



Part No.	Product No.	1	10
197843CF	PCI-PDIS08 (PCI)	$248.95	$223.95

Corporate Customers

Opening an account is easy!
Call 1-800-831-4242 for details today.

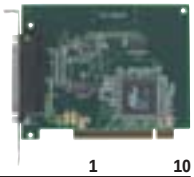
Digital Input/Output Boards – TTL Level

- Output: 2.5mA @ 0.45V sink, 2.5mA @ 2.4V source
- Software available, see right

Includes: InstaCal: installation and test utilities software

PCI Bus

- 24-bit digital I/O
- Three 8-bit ports:
- For terminal board, enclosure and cable, see below



Part No.	Product No.	1	10
197827CF	PCI-DIO24	$88.95	$85.95

ISA Bus

- 24-bit (P/N 151511CF) or 48-bit (P/N 136784CF) digital I/O
- 8-bit ports



151511CF

Part No.	Product No.	1	10
151511CF	CIO-DIO24	$65.95	$59.35
136784CF	AX5214H	109.95	98.99

Serial communications Board – RS-422/RS-485

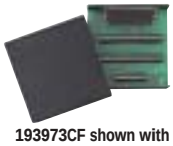
- Configured as COM1, COM2, COM3 or COM4
- RS-422/RS-485 cable length: 1.2km maximum
- PCI Bus
- 16C550 UART
- 460kbpps
- 2 ports
- PCI bus 2.1 compliant



Part No.	Product No.	1	10
197915CF	PCI-COM422/485	$198.95	$178.95

Terminal Boards, Enclosures and Cables for the Above Boards

Part No.	Product No.	Description	1	5
193965CF	CIO-MINI37	Terminal board	$62.95	$55.95
193973CF	ENCMINI-37	Enclosure	28.95	26.10
193949CF	C37FF-2	Cable (ribbon)	24.95	22.50
193957CF	CF37FFS-5	Cable (shielded)	34.95	31.50



193973CF shown with P/N 193965CF (not included)



193957CF



193949CF

PC-Based Data Acquisition Software

Graphical Programming Software for Measurement Computing Boards



SoftWIRE is a graphical programming package for Visual Basic; one window holds the graphical program while the other holds the user interface on a Visual Basic form. By simply using the 130+ functions included with the software, you can click on the function, make connections to the controls with wires, provide your options, then run the program. While you are creating all these functions and connections, the software also provides the code in Visual Basic.

System requirements:

- Pentium® 90 or higher, Windows® 95/98/2000/ME/NT4.0, VGA or higher resolution monitor and Microsoft® Visual Basic 6.0 or later
- Any Measurement Computing DAQ or GPIB board

Part No.	Description	1	5
194028CF	SoftWIRE/VB-PPD	$493.95	$443.95

Data Acquisition Direct to Excel



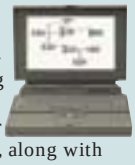
DAS-Wizard is an add-in for Excel that controls your Measurement Computing data or phone acquisition board and places your measurements directly into the cells of an Excel worksheet. A simple dialog box allows you to configure the data acquisition board and set the range of cells to place measurements.

System requirements:

- PC with Pentium® 90 or higher
- Windows® 95/98/2000/ME/NT4.0
- Microsoft® Visual Basic 6.0 or later
- VGA or higher resolution monitor
- Any Measurement Computing DAQ board (left)

Part No.	Description	1	10
197851CF	DAS-Wizard	~~$140.95~~ $139.95	$125.99

The Basics of PC-Based Data Acquisition, Analysis, and Control



Using your PC as a platform for the acquisition, analysis and control of physical data is both powerful and economical. Simply adding a card with analog and digital data acquisition and control capability, or a module connected via a serial port, along with easy-to-use software, turns your desktop or laptop computer into a sophisticated instrumentation system.

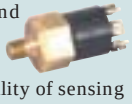


A PC-based data acquisition and control system is comprised of five fundamental elements: sensors / transducers, analog-to-digital conversion with signal conditioning, digital sensing, analog and / or digital control, and software. The first consideration is the physical parameter or condition you wish to measure & record; it could be temperature, pressure, acceleration, vibration, sound intensity, and much more. Transducers convert physical parameters to electrical signals. Many transducers require signal conditioning (amplification, filtering, etc.), which is usually provided by the data acquisition card.

See Sensors On Page 105

For most PC-based data acquisition systems, analog-to-digital conversion is typically handled with a plug-in board or card – commonly known as DAQ boards (PCI, ISA or PCMCIA type). Alternately, a DAQ module connected via a serial port can be used. The key function of a DAQ board or module is to convert the analog signals coming in from the sensors into digital signals with which the PC can deal.

The primary specifications to look for are number of channels, resolution, and sample rate.



Virtually all DAQ boards and modules also have the capability of sensing digital input signals; for example, switch contacts. These signals are often used to initiate acquisition of analog data.

Once the data has been acquired & processed by the PC, the analog and digital output capability of a DAQ board can be used for control; i.e., "closing the loop".

A popular software program, SoftWIRE, is built in two windows. The first window holds the graphical program while the other window holds the user interface on a Visual Basic form.

ATEN 5-Port USB 2.0 PCI Card

40 Times Faster Than the Original USB!



USB 2.0 will offer enhanced functionality, allowing more devices to share the increased bandwidth.

- Supports high speed data transfer rate of up to 480 Mbps
- Full backwards compatible with USB 1.1
- Supports Windows® 98SE/2000/ME/XP
- Hot swappable Plug & Play
- 1 internal USB-A port
- 4 external USB-A ports
- PC Power Management v2.2 compliant

Part No.	Description	1	10
197940CF	5-port USB 2.0 PCI card	$54.95	$49.49

Combo IEEE 1394 and USB 2.0 PCI Card



Create your own videos with this combo PCI card.

- Fully IEEE 1394 (firewire) OHCI compliance
- 133Mbps PCI bus master DMA transfer rate
- 400Mbps transfer rate on IEEE 1394 and 480Mbps transfer rate on USB 2.0
- Supports USB 1.0 and OHCI specifications
- 2 external and 1 internal IEEE 1394 connector
- 3 external and 1 internal USB connector
- Supports Windows® 98/ME/XP/2000 and MAC OS
- Board size: 4.8"L x 3.5"W

SALE

Includes: ULEAD VideoStudio software on CD-ROM, drivers and utilities on CD-ROM, internal power cable, IEEE 1394 cable, internal power cable, and manual

Part No.	Description	1	10
208477CF	PCI USB ~~$99.95~~	$89.95	$81.95

2-Port USB-A PCI Card



- Plug & Play compatible
- Uses VIA VT83C572 controller chip
- USB specification V.1.1 compatible
- USB legacy BIOS supports
- Operates in USB-aware operating system (Win® 95, 98)
- Size: 4.7"L x 2.0"W
- One-year warranty

Includes: Manual

Part No.	Description	1	10	25
155299CF	PCI USB	$24.99	$22.49	$20.25

Everything You Need To Develop Custom USB Peripherals Book



Lakeview (2nd Edition) This USB Complete book provides an easy-to-use interface for computer peripherals. The book covers topics such as what USB can do, transfer types, chip choices, what's inside a USB controller, writing firmware, how the host communicates and more. (523 pages, 1999)

- Size: 7.0" x 9.0" • Weight: 1.9 lbs.

Part No.	Description	Price
171900CF	Complete USB Book	$49.95

USB Thumb Drives



217795CF

What better way to keep your data safe than to keep it close to you? Thumb drives are compact and fit easily in your pocket or hang it around your neck. Portable and lightweight, no external power needed. No drivers necessary for Windows® ME and above.

- 10 year data retention • Size: 2.9"L x 0.7"W x 0.4"H
- Windows® 98/98SE drivers are available at www.Jameco.com

Part No.	Description	1	10
217752CF	16MB ~~$54.95~~	$25.95	$23.95
217761CF	32MB ~~$89.95~~	36.95	34.95
217779CF	64MB ~~$99.95~~	51.95	48.95
217787CF	128MB ~~$299.95~~	87.95	79.95
217795CF	512MB	289.95	279.95

2-Port USB-A CardBus PC Cards

- PCMCIA type-II card
- New 32-bit CardBus
- Size: 4.6"L x 2.1"W

SALE



189499CF

208047CF: USB 2.0 EHCI USB standard; 480Mbps max.

189499CF: USB 1.1 OHCI USB standard; 12Mbps max.

System requirements: Windows® 98, ME, 2000, and Mac OS 8.6 or later

Part No.	Description	1	10
208047CF	USB 2.0 CardBus	$89.95	$79.95
189499CF	USB 1.0 CardBus ~~$99.95~~	49.95	44.95

Firewire CardBus PC Card



Designed to connect Firewire devices to any notebook computer. With its two external ports, you can have 63 devices on the same ports with a max speed for 400Mbps. A mini DC jack is provided on the card for IEEE 1394 devices that require power through the cable.

- Fully IEEE 1394 OHCI compliance
- 133MB/s CardBus master DMA transfer rate
- Real time transmission data
- Open architecture API
- Peer to peer communication structure
- Backward compatible speeds
- 32-bit bus
- Increases efficiency of data transactions while simplifying software driver designs
- Supports Windows® 98SE/ME/XP/2000 & Apple® MAC OS 8.6 or above • Size: 4.7"L x 2.1"W

Includes: 6' Firewire cable, manual, and ULEAD VideoStudio software

Part No.	Description	1	10
215984CF	Firewire CardBus PC Card	$89.95	$79.95

External 3-Port USB Thumbhub



Expand your single USB port to a stacked 3-port thumbhub.

- USB Revision 1.1 compliant
- Downstream port with OCD (over current detection) and OCP (overcurrent protection)
- LED indicators uplink/down port communication, and OCP status
- Supports full speed (12Mbps) and low speed (1.5Mbps) transfer rate
- Self-powered mode
- Compatible with Windows® 98/98SE/2000/ME/MAC OS8.5
- Size: 3.1"L x 0.8"W x 1.2"H



Part No.	Description	1	10
208451CF	3-port thumbhub	$18.95	$16.95

External 7-Port USB Hub



- 7 USB-A female output ports
- USB-B female root port
- Plug & Play compatible
- Allows you to attach 127 USB devices to your PC
- LED indicators for port, status, and power
- Size: 7.9"L x 2.8"W x 1.1"H • Weight: 2.6 lbs.

Includes: 6VDC power adapter and USB-A male to USB-B female cable

Part No.	Description	1	10
191450CF	7-Port USB hub	$35.95	$26.95

USB-A to Joystick (DB15) Adapter



- Fully compatible with any 15-pin game port PC game controller
- Mode switch selector for maximum compatibility and flexibility
- Input connector: USB-A male
- USB Plug & Play
- Output connector: DB15-pin female connector
- Size: 3.2"L x 2.3"W x 1.3"H

System requirements: 586 or higher compatible; available USB-A port or Hub; Windows® 98 or higher

Includes: Manual and 3.5" drivers

Part No.	Description	1	10
189510CF	USB to game port adapter	$39.95	$35.99

For Additional USB Products



Printers Page 184

Cameras Page 185

See the highlighted yellow and green items.

Jameco Special Values

Details on page 3.



USB-A Female Cables & Bracket



- Supports data transfer rates of 12Mbps
- Allows connection of two devices
- Dual USB-A female connectors • 8" long

Part No.	Description	1	10	25
144813CF	USB-A panel mount	$6.95	$6.25	$5.59

ATEN USB-to-Centronics Printer Cable



- Full compliance with the USB spec V.1.0
- USB-A male to 36-pin male centronics connector
- Supports true bidirectional communication
- Applicable to standard and bidirectional printers

Part No.	Description	1	10	25
155352CF	6' USB cable	$29.95	$26.95	$23.95

USB Cable Extenders



191441CF

- Extends distance between USB devices by up to 16'
- Complies with USB electrical and timing specifications
- Compatible with high and low speed USB devices
- Interface: USB-A male to USB-A female
- Size: (adapter): 2.8"L x 1.5"W x 0.6"H • Wt.: 1.0 lb.

Includes: USB-A male to USB-B female cable

Part No.	Description	1	10	25
191433CF	8' USB extender ~~$24.95~~	$12.95	$11.65	$10.49
191441CF	16' USB extender	29.50	25.09	18.85

USB to Serial Adapter with Prolific Chipset



This USB serial adapter provides an external Plug-and-Play RS-232 port for computers, notebooks, laptops, and handheld held computing devices. Provides high-quality serial connections at transfer rates of more than 500kbps for cell phones, PDAs, digital cameras, modems and ISDN terminal adapters. Since it is a USB connection it eliminates the hassles of traditional serial port connections and IRQ conflicts.

- Frees existing RS-232 ports for other uses
- Supports RS-232 serial interface, automatic handshake mode, remote wake-up & power management
- Provides a 96-byte buffer for each upstream and downstream data transfer • Weight: 1.5 lbs.
- Full compliance with USB specification v 1.1
- 7" cable with DB25 male connector and 14" cable with USB-A connector • Size: 2.7"L x 1.6"W x 0.7"H

System requirements: Windows®98/2000, USB host controlled installed in the system

Includes: 3.5" software and manual

Part No.	Description	1	5
213006CF	USB-A to Serial converter	$29.95	$27.95

USB Gender Adapters



169375CF

USB-A to USB-B

169383CF: USB-A (M) to USB-B (F)
169375CF: USB-A (F) to USB-B (M)

Part No.	Description	1	10	25
169383CF	1.3"L x 0.4"W	$6.95	$6.35	$5.59
169375CF	1.7"L x 0.6"W	6.95	6.35	5.59

Retractable USB and Firewire Cables



Carrying all those extra cables for your computer peripherals such as printers, cameras, zip drives, external hard drives, adds weight and gets tangled in your computer bag. With these retractable USB and Firewire cables, you can easily store them in an inside pocket of your bag, plus they are tangle free. Just pull the cable on both ends of the spool and you have a high quality cable that extends to over 2'. Simply pull again and it retracts back into its housing.

USB cables

Part No.	Description	1	5
226376CF	USB A male to female	$11.95	$10.95
226368CF	USB A – B	11.95	10.95
226384CF	USB A – Mini 4-pin	11.95	10.95
226392CF	USB A – Mini 5-pin	11.95	10.95

Firewire cables

Part No.	Description	Price
226405CF	4-pin M – M, 400Mbps	$13.49
227424CF	6-pin M – 4-pin M 400Mbps	15.95
227459CF	6-pin M – M 400Mbps	14.95

IEEE 1394 Firewire Cables



175821CF 175839CF 175847CF

Connect your computer to the latest high speed Firewire peripherals.

- IEEE-1394 compliant • UL approved
- Molded connectors • Length: 6'

Part No.	Description	1	10	25
175821CF	4-pin M – M	$15.95	$14.49	$12.95
175839CF	6-pin M – 4-pin M	11.95	10.74	9.49
175847CF	6-pin M – M	9.95	8.94	8.04

External USB-A IrDA Transceiver



Convert your USB port into an infrared communications port to transfer data from you PDA, notebooks, camera, cellular phone, and other mobile devices.

- Adjustable base for height and angle
- Supports standard USB port
- Meets IrDA v1.0 and v1.1 • Plug & Play
- Supports data transfer rate from 115.2k up to 4Mbit per second
- Transmission distance of 3.3' or 39.4"
- Size: (including base) 2.4"L x 1.6"W x 0.9"H

System requirements: Windows® 98/ME/2000/XP

Includes: Manual, extension cable and 3.5" disk software drivers

Part No.	Description	1	10
213903CF	USB-A to IrDA Transceiver	$49.95	$44.95

USB 2.0 Cables



USB-A (M) to USB-A (M) USB-A (M) to USB-B (M) USB-A (M) to USB-A (F)

- Higher transfer rate up to 480Mbps

USB-A Male to USB-A Male

Part No.	Description	1	10	25
229681CF	6' cable beige	$6.49	$6.49	$5.99
222033CF	6' cable black	6.49	5.99	5.69
229551CF	6' cable clear	6.49	5.99	5.69
229690CF	10' cable beige	7.99	7.19	6.49
222041CF	10' cable black	7.99	7.19	6.49
229569CF	10' cable clear	7.99	7.19	6.49
229702CF	15' cable beige	12.99	11.69	10.49
222050CF	15' cable black	12.99	11.69	10.49
229577CF	15' cable clear	12.99	11.69	10.49

USB-A Male to USB-B Male

Part No.	Description	1	10	25
229711CF	3' cable beige	$5.99	$5.39	$4.99
222607CF	3' cable black	5.99	5.39	4.99
229585CF	3' cable clear	5.99	5.39	4.99
229729CF	6' cable beige	6.49	5.99	5.69
222009CF	6' cable black	6.49	5.99	5.69
229593CF	6' cable clear	6.49	5.99	5.69
229737CF	10' cable beige	7.99	7.19	6.49
222017CF	10' cable black	7.99	7.19	6.49
229606CF	10' cable clear	7.99	7.19	6.49
229761CF	15' cable beige	12.99	11.69	10.49
222025CF	15' cable black	12.99	11.69	10.49
229614CF	15' cable clear	12.99	11.69	10.49

USB-A Male to USB-A Female

Part No.	Description	1	10	25
229770CF	6' cable beige	$7.99	$7.19	$6.49
222068CF	6' cable black	7.99	7.19	6.49
229622CF	6' cable clear	7.99	7.19	6.49
229788CF	10' cable beige	9.99	8.99	7.99
222076CF	10' cable black	9.99	8.99	7.99
229631CF	10' cable clear	9.99	8.99	7.99
229796CF	15' cable beige	14.99	14.99	11.99
222084CF	15' cable black	14.99	13.49	11.99
229649CF	15' cable clear	14.99	13.49	11.99

SALE USB 1.1 Cables



175425CF 175417CF 199793CF

USB-A Male to USB-A Male

Part No.	Description	1	10	25
196904CF	2' cable ~~$3.49~~	$1.99	$1.79	$1.59
175425CF	3' cable ~~$3.95~~	2.95	2.65	2.39
175433CF	6' cable	4.95	4.49	3.95
175441CF	10' cable	5.95	4.49	3.15

USB-A Male to USB-B Male

Part No.	Description	1	10	25
175417CF	3' cable	$4.49	$3.99	$3.59
169359CF	6' cable	4.95	4.49	3.95
169367CF	10' cable	5.95	5.25	4.59

USB-A Male to USB-A Female Extension

Part No.	Description	1	10	25
199793CF	6' cable	$4.95	$4.49	$3.95
199806CF	10' cable	5.95	5.25	4.59

RGB Video Cables

SALE


73648CF

- 75Ω coaxial cable; 6' or 10'
- Pin 1 red, pin 2 green, pin 3 blue, pin 14 white/black vertical, pin 13 gray horizontal
- 5 BNCs to HDDB15-pin male
- Weight: 0.9 lbs.

Part No.	Description	1	10	25
73648CF	6' cable (black) ~~$24.95~~	$19.95	$17.95	$16.15
118068CF	10' cable (black)	31.95	28.95	21.95

Serial Null Modem Cables


180697CF


180582CF


180742CF

- Molded type connectors
- Color: gray

181403CF/180697CF Pin outs: 1 & 6-4, 2-3, 3-2, 4-6 & 1, 5-5, 7-8, 8-7

181438CF Pin outs: 2-2; 3-3; 5 & 6-4; 7-5; 8-7; 20-6 & 8 (Serial Printer Null Modem)

180582CF Pin outs: 2-2; 3-3; 4-5 & 6; 5-7; 6 & 8-20; 7-8; (Serial Printer Null Modem)

180742CF Pin outs: 1-4 & 5; 2-2; 3-3; 4-6; 5-7; 6-20; 7-8; 8-8

Part No.	Description	Wt. (lbs.)	1	10	50
181403CF	6' DB9 F to DB9 F	0.3	$5.69	$5.09	$4.59
180697CF	10' DB9 F to DB9 F	0.4	6.79	6.09	5.49
181438CF	6' DB25 M to DB9 F	0.4	4.95	4.49	3.95
180582CF	10' DB25 M to DB9 F	0.4	6.69	6.05	5.45
180742CF	10' DB25 F to DB9 F	0.5	7.39	6.65	5.99

VGA Monitor Cables


66173CF

- Connects video card to VGA monitor
- IBM PC/XT and higher compatibles
- HDDB15 male to male

Part No.	Description	1	10	100
66173CF	6' monitor cable	$6.49	$5.89	$5.29
148523CF	10' monitor cable	6.95	6.25	5.59

9-Pin Monitor Cable



- For monochrome, RGB, EGA and multisync monitors
- Connects video card to monitor
- IBM PC/XT and higher compatibles

Part No.	Description	1	10	100
66157CF	6' DB9 M-M	$4.45	$3.95	$3.55

VGA Monitor Extension Cables


66165CF


134041CF

- Extends VGA monitor cable; HDDB15 male-to-female
- IBM PC/XT and higher compatibles

134041CF: • HDDB15 female with hex nuts and HDDB15 male with thumbscrews

66165CF/148531CF/220661CF:
- Thumbscrews on each end

Part No.	Description	1	10	100
134041CF	6' screws/hex nuts	$4.49	$3.95	$3.49
66165CF	6' thumbscrews	6.59	5.95	5.35
148531CF	10' thumbscrews	7.49	6.79	5.99

DA15 Extension Cables


181286CF

- Molded connectors
- Straight through
- Thumbscrews
- Color: gray

Part No.	Description	Length	1	10	100
181286CF	DA15 M-M	6'	$5.49	$4.95	$4.45
181358CF	DA15 M-F	6'	5.49	4.95	4.45

DB25 Serial Modem Cable



- Molded and fully shielded DB25 M-F
- 9 pins wired straight through: pins 1-8 and 20 (metal shell)

Part No.	Description	1	10	100
53858CF	6' M-F	$4.49	$3.85	$2.89

DB25-to-Centronics Parallel Printer Cables


28716CF

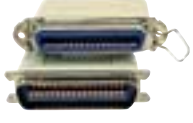

164777CF

- Molded and fully shielded DB25 male and 36-pin Centronics male connectors
- IBM PC/XT and higher compatibles

Part No.	Description	Wt. (lbs.)	1	10	100
28716CF	6' straight	0.4	$4.69	$4.25	$3.85
223845CF	6' straight	0.6	11.95	10.95	10.95
123781CF	10' straight	0.6	5.95	5.09	3.79
164777CF	10' right angle*	0.7	5.49	4.69	3.55
28708CF	15' straight	0.8	5.95	5.09	3.79
101899CF	25' straight	1.1	5.95	5.09	3.79
184786CF	50' straight	2.1 ~~$12.95~~	3.95	3.55	3.19

* Centronics right angle

36-Pin Centronics Printer Extension Cable



25 Conductors

- Molded and fully shielded Centronics 36-pin male and female connectors
- Use to lengthen standard printer cables or for switch box applications
- Weight: 1.0 lb.

SALE

Part No.	Description	1	10	100
180515CF	6' M-F ~~$2.49~~	$.35	$.31	$.29

37-Pin Straight Through Cable Adapters


180611CF 181294CF

- Molded connectors
- Color: gray • Weight: 0.9 lbs.

Part No.	Description	1	10	100
180611CF	6' DC37 M-M	$6.95	$6.29	$5.65
181294CF	6' DC37 M-F	5.95	5.49	4.95

30-Day Money-Back Guarantee

If you're not completely satisfied, we'll take it back!

Details on page 226.

DB9 Extension Cables


132345CF


25700CF

- All lines connected straight through

132345CF/196365CF:
- DB9 female to DB9 female cable with thumbscrews

220661CF/25700CF/148515CF/199638CF:
- DB9 male to DB9 female cable with thumbscrews

181665CF: • DB9 male to DB9 male cable

Part No.	Description	1	10	100	1000
220661CF	5' M-F	$4.39	$3.89	$3.35	$2.89
132345CF	6' F-F	4.95	4.49	3.95	3.49
199638CF	6' M-F (black)	4.49	3.95	3.49	2.95
25700CF	6' M-F ~~$6.49~~	4.95	4.49	3.95	3.49
196365CF	10' F-F	6.95	6.25	5.59	4.95
148515CF	10' M-F	7.49	6.79	5.99	4.95
181665CF	10' M-M	6.95	6.25	5.59	4.95

9-Pin Test Cable



- DB9 M to DB9 F (6')
- Pin outs: 1-3, 2-2, 4-5

Part No.	Description	1	10	100
162915CF	DB9 male to DB9 female	$3.49	$2.99	$2.25

DB9-to-DB25 AT-Adapter Serial Cables


31721CF

- For DB9 serial ports which need to be converted to DB25 serial
- AT and compatibles
- Molded DB9 female to DB25 male connectors

Part No.	Description	1	10	100
109583CF	1' serial, beige	$4.35	$3.95	$3.49
189333CF	3' serial, beige	3.95	3.39	2.55
31721CF	6' serial, beige ~~$5.29~~	3.89	3.55	3.15
191361CF	6' serial, gray	4.39	3.99	3.15
155521CF	10' serial, beige	4.49	3.85	2.89
207790CF	4' serial, beige ~~$4.49~~	3.95	3.59	3.25

DB25 Extension Cables


67256CF

- All lines connected straight through
- Use to lengthen your standard serial cable or for switch box applications
- Thumbscrews to secure connectors
- Color: gray; except P/Ns **174001CF/175290CF:** black*

Part No.	Description	Wt. (lbs.)	1	10	100	1000
174001CF	3' M-M*	0.6	$4.79	$4.35	$3.89	$3.49
65787CF	6' M-M	0.5	6.49	5.89	5.29	4.89
39538CF	10' M-M	0.7	6.95	6.29	5.05	3.69
179979CF	15' M-M	1.2	6.95	6.29	5.05	3.65
67070CF	25' M-M	1.4	10.95	9.95	8.95	7.95
180435CF	50' M-M	3.6	14.95	13.49	11.95	9.95
164291CF	3' M-F	0.4	4.29	3.89	3.09	2.35
175290CF	3' M-F*	0.4	2.95	2.69	2.25	1.59
163133CF	5' M-F	0.6	5.29	4.75	4.29	3.85
67256CF	6' M-F	0.6	6.45	5.79	5.25	4.69
39511CF	10' M-F	0.7	6.95	6.29	5.05	3.69
177279CF	15' M-F	1.0	9.49	8.55	6.85	4.99
101995CF	25' M-F	1.4	11.95	10.79	8.65	6.35
181201CF	50' M-F	3.2	17.95	14.39	10.79	7.55
224266CF	6' F-F	0.7	4.95	3.95	2.95	2.09
181331CF	10' F-F	0.9	6.69	5.55	4.15	2.89

2-Way & 4-Way Monitor/Keyboard/Mouse-to-PC Switch Boxes

HDDB15/5-Pin DIN/DB9M



132249CF



134017CF

- Allows 2 or 4 users to share one PC system
- Internal diodes maintain keyboard in powered state when switching between systems
- Each user may need 2 or 4 sets of the following cables: P/N 66173CF, DB15HD M-M for monitor; P/N 114913CF, 5-pin DIN M-M for keyboard; P/N 132345CF, DB9 F-F for serial mouse (cables, pgs 194 - 195)
- Size: 7.5"L x 5.3"W x 2.8"H

Part No.	Description	Wt. (lbs.)	1	10
132249CF	2-user switch box	1.6	$17.95	$15.95
134017CF	4-user switch box	2.3	21.95	19.95

Keyboard/Monitor-to-PC Switch Box

HDDB15/5-Pin DIN Female



- 2-way switch box
- For 2 PCs connected to 1 keyboard and 1 monitor – diodes maintain keyboard in powered state
- Size: 6.0"L x 4.0"W x 2.3"H
- Weight: 1.3 lbs.

Part No.	Description	1	10
114155CF	2 computers	$14.95	$13.49

Keyboard/Monitor-to-PC Switch Box

HDDB15/6-Pin Mini DIN Female



- Connects 2 monitors and 2 keyboards to a PC
- Size: 6.0"L x 4.5"W x 2.6"H
- Weight: 1.3 lbs.

Part No.	Description	1	10
79177CF	2-way switch box	$16.95	$15.25

Serial Port-to-PC Switch Boxes

DB9 Female



79126CF





183417CF

- Connects 2 or 4 serial ports to a PC

79126CF: 2-serial port switch box
- Size: 6.0"L x 4.8"W x 2.5"H
- Weight: 1.2 lbs.

183417CF: 4-serial port switch box
- Size: 6.1"L x 4.0"W x 2.2"H
- Weight: 1.3 lbs.

Part No.	Description	1	10
79126CF	2-serial port switch box	$9.95	$8.95
183417CF	4-serial port switch box	19.95	17.95

Network Devices-to-Server Switch Box

RJ45 8P8C Female





- Connects network devices to 4 servers
- 5 RJ45 8P8C females
- Size: 8.0"L x 6.1"W x 2.2"H
- Weight: 2.0 lbs.

Part No.	Description	1	10
180099CF	4-server RJ45 switch box ~~$16.95~~	$14.95	$13.49

Fax/Modem/Telephone-to-PC

RJ11 6P6C Female

79142CF



- Connects fax, modem, or telephone to 2 or 4 PCs

79142CF: 2-PC switch box
- Size: 6.0"L x 4.8"W x 2.5"H
- Weight: 1.2 lbs.

180161CF: 4-PC switch box
- Size: 8.0"L x 6.0"W x 2.2"H
- Weight: 2.0 lbs.

SALE



180161CF

Part No.	Description	1	10
79142CF	2-PC RJ11 switch box	$9.95	$8.95
180161CF	4-PC RJ11 switch box ~~$15.95~~	9.95	8.95

Parallel Printer-to-PC Switch Boxes

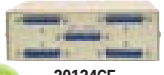
DB25 Female



20095CF



155512CF



20124CF

- Connects 2 or 4 PCs to one printer

20095CF: 2-PC switch box
- Size: 6.0"L x 5.8"W x 2.3"H
- Weight: 1.3 lbs.

155512CF: 2-PC switch box
- Size: 7.2"L x 4.9"W x 2.5"H
- Weight: 2.3 lbs.

Includes: DB25 M-M cable

20124CF: 4-PC switch box
- Size: 6.0"L x 4.0"W x 2.4"H
- Weight: 1.5 lbs.

Part No.	Description	1	10
20095CF	2 PC switch box	$8.95	$7.95
155512CF	2 PC switch box	6.49	5.54
20124CF	4 PC switch box	14.95	13.49

Coaxial Switch Box



- 3-way switch box, switches from a single input source to 3 outputs
- 60dB isolation – shielded housing
- 75Ω input-output
- 5-900MHz UHF/VHF/FM

Part No.	Description	1	10	25
228241CF	Coaxial switch box	$4.85	$4.59	$4.35

Monitor/Mouse/Keyboard Cables



141284CF

- 6' or 32'
- HDDB15 male/female for monitor, 5-pin DIN male/female for keyboard, and DB9 male/female for mouse

Part No.	Description	Wt. (lbs.)	1	10
141284CF	6' cable	1.6	$22.95	$19.95
141276CF	32' cable	4.8	39.95	35.95

Switch Box Adapter Cables



174772CF



205655CF

177261CF: Male to male non-coiled cable for P/N 79177 switch box, left
114913CF: Male to male coiled cable for P/N 114155CF switch boxes, left
174772CF: Male to male
174908CF/205655CF: Male to male non-coiled
112627CF: Male to male non-coiled cable for P/N 79177 switch box, left

Part No.	Description	Length	1	10	50
177261CF	6-pin mini DIN	2' (gray)	$2.95	$2.55	$1.89
114913CF	5-pin DIN	5' (gray)	4.95	4.49	3.95
174772CF	6-pin mini DIN	6' (black)	4.95	4.25	3.19
174908CF	6-pin mini DIN	6' (gray)	5.75	5.15	4.65
112627CF	6-pin mini DIN	10' (beige)	7.95	7.25	6.49
205655CF	6-pin mini DIN	25' (beige)	8.95	7.95	6.95

PC/XT/AT & PS/2 Keyboard Extension Cables

SALE



114981CF

- Color: beige

22234CF/114981CF/112045CF169826CF:
- 5-pin DIN male-to-female

28548CF/111053CF:
- 6-pin mini DIN female-to-male

Part No.	Description	1	10	100
22234CF	PC/XT/AT 5' coiled ~~$3.49~~	$1.05	$.95	$.85
114981CF	PC/XT/AT 6' non-coiled	3.85	3.45	3.09
169826CF	PC/XT/AT 10' coiled ~~$2.95~~	.99	.89	.79
112045CF	PC/XT/AT 10' non-coiled	3.95	3.39	2.55
28548CF	PS/2 6' non-coiled	4.35	3.89	3.49
111053CF	PS/2 10' non-coiled	5.49	4.99	4.39

AT-to-PS/2 and PS/2-to-AT Keyboard Adapter Cables



28003CF

28003CF:
- Connects AT-type keyboards to PS/2
- 5-pin F DIN to 6-pin M mini DIN

85500CF:
- Connects PS/2 keyboard to AT
- 6-pin female mini DIN to 5-pin male DIN connectors

Part No.	Length	Color	Wt. (lbs.)	1	10	100
28003CF	6.5"	Beige	0.6	$3.95	$3.49	$3.15
85500CF	11.3"	Beige	0.8	5.39	4.85	4.39

Computer





Computer Accessories

Printers page 184
Monitors page 185
Mice page 186
Keyboards page 187





Color Code Legend: New | Sale | Dig Save | Closeout

ATEN SVGA Monitor Splitters

Duplicate a video signal from one source to monitors up to 210 feet away.



176866CF



133866CF

- Suitable for SVGA, VGA and multisync monitors

176866CF: 2-channel

- 1 HDDB15 male connector from PC to box; 2 HDDB15 female connectors from box to monitors
- Size: 6.6"L 3.3"W x 1.1"H • Weight: 1.4 lbs.

133866CF: 4-channel

- Slide switch for video signal gain control
- Daisy chainable • One-year warranty
- Size: 8.8"L x 6.0"W x 1.9"H • Weight: 3.6 lbs.

Includes: Power adapter and manual

Part No.	Description	1	10
176866CF	2-channel monitor splitter	$49.95	$44.95
133866CF	4-channel monitor splitter	68.95	61.95

We'll match the advertised price of any like product.

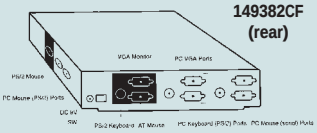
Jameco's Low-Price Guarantee

It's that simple!

ATEN K/V/M Switch Boxes for up to 4 Computers

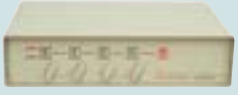


149382CF (front)



149382CF (rear)

- Selects any computer by hot keys or switch
- Serial and PS/2 mouse and keyboard emulation for automatic PC boot up
- Three stage cascadable for accessing more computers
- Supports SVGA, VGA and Multisync monitors
- Keyboard LED status recorded and restored while switching among computers
- Auto scan for monitoring PC periodically
- One-year warranty
- Size (149382CF): 9.0"L x 6.0"W x 2.0"H
  (149391CF): 10.0"L x 7.0"W x 3.0"H



149391CF (front)



149391CF (rear)

Includes: Manual & power supply (9VDC @ 600mA)

Part No.	Description	Wt. (lbs.)	1	10
149382CF	2 computers	4.0	$149.95	$129.95
149391CF	4 computers	7.1	229.95	209.95
204062CF	6' PS/2 cable		16.95	15.29

2-Port K/V/M Switch Box

This two port K/V/M switch box can access two computers from one keyboard, mouse, and monitor. No interface card or software to configure. Operation is as simple as pushing a button on the front panel and entering hot-key commands.



- Supports Microsoft® IntelliMouse, Logitech Net Mouse, etc.
- Supports operating systems DOS, Win 3.x, Win95/98/98SE/2000/ME, WinNT, Netware, Unix, Linux
- High VGA resolution
- Keyboard and mouse pluggable at anytime
- Hot-key function allows easy computer access
- Audible sound for switching port confirmation
- Port and console connectors: female PS/2 keyboard and mouse, female HDDB15 for video
- Size: 4.3"L x 3.0"W x 1.2"H

Part No.	Description	1	10
216063CF	2 port switch box	$69.95	$62.95
204062CF	6' PS/2 cable	16.95	15.29

Monitor/Mouse/Keyboard Cables

- 6' or 32'
- HDDB15 male/female for monitor, 5-pin DIN male/female for keyboard, and DB9 male/female for mouse



141284CF

Part No.	Description	Wt. (lbs.)	1	10
141284CF	6' cable	1.6	$22.95	$19.95
141276CF	32' cable	4.8	39.95	35.95

Printer Sharing

Bidirectional Non-Buffered Serial-to-Parallel Converter



- Bidirectional conversion of parallel and serial signals
- Serial interface: hardware handshake RTS/CTS, software handshakeXON/XOFF; DCE/DTE selectable; parity: odd, even, or no parity; data bits: 7, 8
- Connectors: one DB25 female and one Centronics 36-pin male
- Baud rate: 300 to 38,400bps • Stop bits: 1 or 2
- Size: 4.0"L x 2.5"W x 1.0"H
- Weight: 0.8 lbs. • One-year warranty

Includes: AC adapter (9VAC @ 200mA) and manual

Part No.	Description	1	10	25
116935CF	Bi-converter	$49.95	$44.95	$39.95

Printer Port Extender



- 4-wire phone line transfer of parallel printer data
- Maximum distance: 1300' (396 meters)
- Non-powered
- Transmitter & receiver – DB25M and RJ11 (6P4C) jack
- Maximum data transfer speed: 21kb/sec.
- Size (transmitter and receiver): 3.0"L x 1.9"W x 0.9"H

SALE

Includes: 25 ft. RJ11 cable

Part No.	Description	1	10
183337CF	Printer port (DB25M) ~~$20.95~~	$18.95	$16.95

4 & 2-Port Auto Printer Switches



177421CF



177404CF

- Connects up to 4 PCs to 1 printer or 4 printers to 1 PC
- Non-powered
- Compact size
- Auto form-feed selectable
- Transparent to user

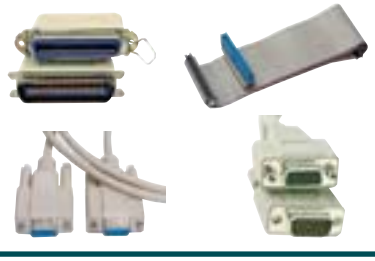
177421CF: bidirectional; 3.5" software included; 5 DB25 female connectors
177412CF: 5 DB25 female connectors
177404CF: 3 DB25 female connectors

SALE

Part No.	Description	1	10	25
177421CF	1 to 4 or 4 to 1	$7.75	$6.96	$6.26
177412CF	4 to 1 printer ~~$12.95~~	3.49	3.15	2.89
177404CF	2 to 1 printer ~~$9.95~~	2.15	1.95	1.75

Computer

Computer Cables on pages 182 & 194



19" Rack Mount Keyboard Tray

This sliding keyboard tray only occupies a 1U or 1.75" space on a rack mount. A hinged articulating arm provides cable management and accommodates most standard size keyboards.



New

- Black powder coat finish
- Size: 3.5"H x 20.0"W x 9.0"D

Part No.	Description	1	10
229471CF	19" rack mount keyboard tray	$99.95	$89.95

19" Rack Mount Drawer with Keyboard and Trackball



- Occupies a single unit (IU) rack space
- PS/2 connector for keyboard and trackball
- Color: gray
- Size: 19"W x 13"D x 2.8"H
- Weight: 18 lbs.

Includes: Wrist pads, module, PS/2 to 5-pin DIN and PS/2 to 9-pin adapters, and software

Part No.	Description	1	10
220644CF	Rack mount KB drawer	$249.99	$234.99

19" Rack Mount Enclosures

Perfect for equipment setup in home, studio or laboratory.



- Ventilation holes on all sides
- Front and back panels are steel w/ aluminum, pre-punched face plates
- Top, bottom, sides durable 0.035" steel
- Front panel: 0.12" Thick • Black front panel
- All enclosures have handles except P/N 132812CF

Includes: Mounting screws

Part Number	Dimensions (In.) H1	H2	D	Weight (lbs.)	Pricing 1	10
132812CF	1.73	1.25	9.75	6.2	$39.95	$35.99
132821CF	3.46	3.0	9.75	7.9	47.95	43.49
132839CF	3.46	2.88	11.75	9.1	53.95	48.59
132847CF	5.22	4.75	11.75	10.6	63.95	55.99
132855CF	5.22	4.75	13.50	11.8	73.95	66.95
132863CF	8.56	8.0	13.50	15.4	94.95	84.95

19" Equipment Wall Mount Brackets

Save space in your office or computer room by installing your 19" equipment to the walls with this wall mount brackets.



- Black powder coat finish
- Size: P/N 229454CF – 7.0"H x 12.0"D
  P/N 229462CF – 12.25"H x 12.0"D

NEW

Part No.	Description	1	10
229454CF	Bracket for 2U	$49.95	$44.95
229462CF	Bracket for 3U	84.95	76.45

19" Industrial Chassis with PC-AT 300-Watt Power Supply

EIA RS-310C Compliant



- Back panel with 12 open slots
- Supports one 3.5" and two 5.25" external accessible bays and two 3.5" internal bays
- Use with 14-slot PC-BUS compatible backplane P/N 135061CF, above right
- Removable disk drive bay w/ shock resistant design
- Front 12VDC cooling fan with removable air filter screen and mesh
- Waterproof front panel
- Color: gray • Weight: 37 lbs.
- Size: 16.8"L x 16.9"W x 7.0"H

Includes: Mounting hardware

Part No.	Description	1	10
146851CF	19" chassis w/ 300W PS	$295.95	$269.35

19" Rack Mount Enclosure for 14" Monitor

- Clear glass front panel
- Hinged door for accessing monitor controls
- Color: gray
- Size: 19.0"W x 15.1"D x 14.0"H
- Weight: 30 lbs.

SALE



Part No.	Description	1	10
136021CF	Enclosure for 14" monitor	~~$269.95~~ $205.59	$184.95

16-Slot ISA-PCI-PICMG Passive AT Backplane

- Ten 16-bit ISA slots, four 32-bit PCI slots and two 48-bit PICMG slots
- LED indicators for ±5V/±12V
- Compatible with P/N 146851CF (below left)
- Size: 12.5"L x 10.0"W
- Weight: 1.9 lbs.



SALE

Part No.	Description	1	10
135061CF	Passive AT backplane	~~$129.95~~ $88.99	$79.99

Cabinet Mounting Plate for 19" Cabinet

- Use as industrial chassis mounting plate for servers, PCs or patch panels
- Made of industrial grade steel and aluminum
- Size: 19.0"W x 15.8"D x 3.5"H • Color: beige



Part No.	Description	1	10
149500CF	Cabinet mount plate	$39.95	$35.95

Removable HD Rack and Insert

- For quick drive swapping
- Removable storage for 3.5" IDE drive
- Power LEDs
- Keylock for security

196040CF:
- Size: 5.8"W x 8.5"D x 1.5"H
- Weight: 1.2 lbs.



196031CF:
- Size: 4.1"W x 7.5"D x 1.6"H • Weight: 0.8 lbs.

Includes: Inner cable with IDE connector

Part No.	Description	1	10	25
196040CF	IDE rack w/ insert	$27.95	$20.95	$14.69
196031CF	Insert for 196040	19.95	17.99	15.99

IDE Removable 5.25" Rack Kit for 3.5" Hard Drive w/ Fan

- Supports DMA 66 hard drive
- Removable storage for 3.5" hard drives
- LED for power and hard drive activity
- Retaining lock mechanism
- 12VDC @ 50mA fan • CFM rating: 5.6
- Size: 5.9"W x 8.7"D x 1.6"H • Weight: 1.3 lbs.



Includes: Mounting hardware

Part No.	Description	1	10	25
170608CF	Rack kit (IDE)	$29.95	$26.95	$23.95

19" Cable Management Racks

Make your cable looms neat and organized with our 2 unit cable management rack. Simply slip in the cable between spaces and route them to their destinations.

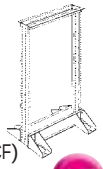


For Rack Mount Patch Panels See Page 202

Part No.	Description	1	10
208776CF	Ducting typeholder	~~$21.95~~ $19.95	$17.99
209031CF	C clamp type holder	~~$21.95~~ 17.89	16.89

Relay Rack & Rack Panels

Rack:
- Black powder coat finish
- 10-32 threaded holes
- Used with 19" wide panels
- 16 gauge CRS base
- 1/8" aluminum side rails
- Size: 84"H (133751CF); 47.25 (231079CF)
- Size (at base): 19.8"W x 15.3"D



NEW

19" Wide Panel:
- 10-gauge black aluminum



Rack screw:
- 10/32 screw; 5/8" phillips head (50 ea.)

Part No.	Description	Height	1	10
133751CF	Relay rack	84"	~~$179.95~~ $159.95	$144.95
231079CF	Relay rack	47.25"	119.95	105.95
133276CF	Rack panel (1U)	1.75"	9.45	8.49
229489CF	Rack panel (2U)	3.50"	10.35	9.39
229497CF	Rack panel (3U)	5.25"	12.89	11.69
229500CF	Rack panel (4U)	7.00"	14.15	12.79
229446CF	Rack screw (50 ea.)	—	8.25	7.45

Rack Mount Card Cage

- For 19" rack mounts
- 24 slots
- Weight: 6.3 lbs.
- Fits card size: 6.5"L x 5.5"W
- Size: 6.5"L x 17.3"W x 6.1"D



Part No.	Description	1	10	25
172099CF	Rackmount card cage	$7.95	$6.79	$5.09

Front Panel Access Ports

Tired of crawling under your desk or standing on your head to plug something into your computer? With these 3.5" front panel access ports, you can customize your PC's to have access to the rear panel USB, IEEE 1394, audio, and serial ports. Now you can enjoy the easy upfront access to all your most used ports without moving the PC.



Tower not included

208004CF: 2 USB; 1 IEEE 1394; Line-In; Line-Out; RS232 (9-pin male)
213532CF: 4 USB; Line-In; Line-Out
213541CF: 2 USB; 1 IEEE 1394; Line-In; Line-Out

Part No.	Description	1	10
208004CF	Front panel port	$34.95	$32.45
213532CF	Front panel port	18.95	16.95
213541CF	Front panel port	18.95	16.95

PCMCIA Card Drive For Desktop PC

PCMCIA drives are commonly found on laptops and power notebooks. Now you can have a PCMCIA drive on your desktop PC. Supports SRAM cards, FLASH cards, LAN cards and FAX/MODEM cards.



Tower not included

- Jumper selectable for 4 drives
- Supports DOS 5.0 or later, Windows 3.1 or later
- Supports Type I/II/III PCMCIA cards

System requirements: IBM PC compatible, 1M free hard disk space, available ISA slot (16-bit), 3.5" bay, DOS 5.0 or later, Windows® 3.1 or later

Includes: Manual, cable and 3.5" diskette drivers

Part No.	Description	1	10
210999CF	PCMCIA drive	$59.95	$53.95

Power Strip Saver Single Outlet

Get full use of your power strips and UPS outlets with our high quality power strip outlet saver, you can use all the outlets on your surge suppressors, UPS, and outlet strips. Just plug a bulky power adapter into this cable and free up your other outlets.

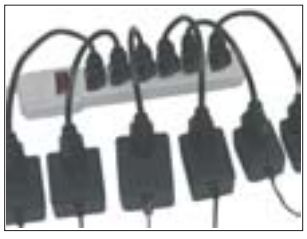


Add more wall adaptors to your power strip!

Before
Four Outlets Blocked



After
Every Outlet is Usable



Part No.	Description	Length	Cord Type	1	10	100
199777CF	AC Power cord (black)	1'	SVT	$1.69	$1.55	$1.39
208338CF	AC Power cord (beige)	1'	SVT	1.69	1.45	1.09

"Y" Power Strip Saver Double Outlet

Get full use of your power strips and UPS outlets with the "Y" power strip saver. Plug those bulky adapters into these cables and plug the cables into the power strip. Need the extra adapter to be plugged into the power strip? Use the "Y" power strip saver to add an extra adapter.



Part No.	Description	1	10	100
208346CF	Power strip saver	$2.89	$2.75	$2.59

6-Outlet Surge Protector

- Input: dual 3-prong input plug
- Surge energy capability: 110 joules
- Surge voltage/current capability: 6000V/4500 to 6000A
- Response time: under 1 ns
- Clamping voltage: 400 volts
- Rating: 125VAC – 15 Amps

SALE



Part No.	Description	1	10	25
195848CF	6-outlet protector ~~$4.95~~	$3.09	$2.79	$2.55

6-Outlet Surge Protector

- Metal
- Max. spike current: 4500 amps, 50 joules
- 3-prong, 4' power cord
- Size: 12.3"L x 2.4"W x 1.3"H



Part No.	Description	Wt. (lbs.)	1	10	100
20175CF	Metal pwr strip	1.5	$9.85	$8.85	$7.85

6-Outlet Surge Protector

- Standard 6-outlet surge suppressor
- Heavy-duty power cord (14AWG x 3)
- RESET/OFF switch with built-in 15A circuit breaker
- Clamping voltage: 400V
- Maximum surge dissipation: 900 joules
- Maximum surge voltage: 6500V
- Maximum spike current: 4500A • Weight: 0.9 lbs.



Part No.	Description	1	10	100
216485CF	Surge suppressor	$6.95	$6.25	$5.59

Compact Surge Protector For Notebook Computers

- Single 3-prong receptacle outlet; and telephone modem protection
- 3-prong wall mount type
- 210 joule rating
- Surge LED indicator
- RFI noise blocker
- Size: 2.3"W x 1.3"D x 3.3"H

Includes: 4' RJ11 cord

SALE



SL WABER

Part No.	Description	1	10	25
206279CF	Outlet protector ~~$6.95~~	$4.25	$3.85	$3.55

Automatic Voltage Regulator

LR Series

- Overvoltage and brownout correction LEDs
- Maximum line current: 8A
- 320 joules
- EMI/RFI noise rejection: 50dB
- Size: 6.8"W x 8.4"D x 5.0"H
- $25,000 lifetime equipment protection policy



191302CF

SALE

Part No.	APC No.	Watts	Wt. (lbs.)	1	10
191302CF	LR600	600	12.5 ~~$129.95~~	$69.55	$63.25
191290CF	LR1250	1250	17.8 ~~$179.95~~	114.95	104.95

Personal Surge Arrest



SALE

Part No.	APC No.	Weight (lbs.)	1	10
191273CF	PER3C	1.3 ~~$24.95~~	$16.65	$15.15
191265CF	PER7	2.1 ~~$29.95~~	16.49	14.85
191855CF	PER7T	2.3 ~~$39.95~~	18.99	17.29

Power Manager-POW6T

- 6 outlets
- 480 joules
- Peak current normal mode: 13kAmps
- Peak current common mode: 26kAmps
- UL1449 TVSS rating: 330V
- $25,000 lifetime equipment protection policy
- Size: 12.5"W x 14.6"D x 1.7"H



SALE

Part No.	APC No.	Weight (lbs.)	1	10
191804CF	POW6TWHT	6.0 ~~$134.95~~	$55.75	$50.69

Professional Surge Arrest

PRO8 Series

- 8 outlets with RJ11 modem/fax/DSL protection
- 320 joules
- Peak current normal and common mode: 13kAmps
- EMI/RFI noise rejection: 60dB
- $10,000 lifetime equipment protection policy
- PRO8T2: 8 outlet with RJ11 modem/fax/DSL protection; PRO8TV: 8 outlet w/ coaxial cable and RJ11 modem/fax/DSL protection
- Size: 8.0"W x 5.8"D x 1.8"H

Includes: 5' telephone cable



191839CF

SALE

Part No.	APC No.	Wt. (lbs.)	1	10
191839CF	PRO8T2	2.5 ~~$69.95~~	$21.85	$19.65
191791CF	PRO8TV	2.5 ~~$69.95~~	23.49	20.99

Notebook Surge Protector-PNOTEPRO

- PNOTEPRO: C8 type connector (2-prong); PNOTEPRO3: C6 type connector (3-prong)
- Surge energy rating: PNOTEPRO – 120 joules; PNOTEPRO3 – 180 joules
- Input connection type: IEC 320
- RJ11 telephone protection
- Five-year standard warranty with $5,000 equipment protection policy
- Size: 1.3"W x 4.8"D x 1.5"H

Includes: Manual, 5' telephone cable and Velcro cord



191821CF

SALE

Part No.	APC No.	1	10
191821CF	PNOTEPRO ~~$49.95~~	$22.45	$20.45
191812CF	PNOTEPRO3 ~~$49.95~~	22.45	20.45



See the yellow and green highlighted items.

Jameco Special Values

Sale details are on page 3.

TRIPP-LITE isobar® Surge Protectors


139686CF


74544CF


19001CF

The world's best known, most advanced surge protectors provide total protection against surges, spikes and line noise.


185113CF

- Up to $50,000 Ultimate Lifetime Insurance covers Isobar and connected equipment against surge damage for life!
- Diagnostic indicators on Ultra versions alert you to improper outlet wiring, loss of AC power, and damage to protection circuitry
- "Cascade Circuitry" allows you to chose increased noise protection level for your most sensitive equipment
- UL 1449 and 1283 listed • Lifetime warranty
- IsoTel model has dual RJ11 jacks for complete modem/fax surge protection
- 2, 4 & 6-outlet protectors: 6' cord; 8 and 12-outlet protectors: 12' cord

ULTIMATE LIFETIME INSURANCE

MADE IN USA

Isobar Premium 19" Rack Mount Surge Protector

Part No.	Product No.	Joules	Description	Wt. (lbs.)	1	10
139686CF	IBAR12RM	750	12 outlet, 2 isolated filters	4.7	$119.95	$107.99

Isobar Premium Surge Protectors

18981CF	ISOBAR 4	2200	4 outlet, 2 isolated filters	2.4	$49.95	$44.95
74544CF	ISOBAR 6	2350	6 outlet, 3 isolated filters	2.7	54.95	49.95

Isobar Ultra Premium Surge Protector

19001CF	ISOBAR 8U	2350	8 outlet, 4 isolated filters	3.5	$69.95	$62.95

Isotel AC/Phone Line Surge Protector

185113CF	ISOTEL 4U	2700	4 outlet, 2 isolated filters	2.7	$39.95	$29.99

TRIPP-LITE Standard Surge Protectors



168954CF 124337CF 32045CF

Economical and effective spike and noise suppression with diagnostic LEDs.

168954CF: $5,000 Ultimate Lifetime Insurance
124337CF/32045CF: $35,000 Ultimate Lifetime Insurance

Part No.	Product No.	Joules	Description	Wt. (lbs.)	1	10
168954CF	Striker 7	480	Up to 27,000 amp spikes	1.2	~~$11.95~~ $8.95	$8.49
124337CF	Super 7	1402	Up to 42,000 amp spikes	1.6	17.95	15.95
32045CF	Super 8	1200	Up to 54,500 amp spikes	1.7	~~$29.95~~ 24.89	22.65

TRIPP-LITE Battery-Backed UPS Systems


185130CF

- Protects your PC, fax/modem and all peripherals against all types of power problems
- Automatic system shutdown with free PowerAlert software for 500VA and 700VA
- Up to $25,000 Ultimate Lifetime Insurance for connected equipment • Up to 45 minutes runtime
- 6-outlets, RJ11 for fax/modem protection

Part No.	Product No.	Description	Agency	Wt. (lbs.)	Price
185130CF	IO500	500VA, 6 outlets	UL/CSA	16.0	~~$134.95~~ $112.89
185148CF	IO700	700VA, 6 outlets	UL/CSA	20.0	135.99

Phone 1-800-831-4242 Fax 1-800-237-6948
Online www.Jameco.com
Order Anytime 24x7x365

Surge Suppressor Stops Crawling and Toe Cramp

KENSINGTON

Use our remote control surge suppressor and stop crawling under your desk or flipping on your equipment power with your toe. Just place the small control strip anywhere easily at hand, up to 6 feet away from the base unit. Attach the remote to the side of your monitor with the enclosed adhesive strips if you like to keep you desktop clear. Then power up 4 plugs, or turn off specific outlets with a touch of a button. One play stays alive continuously. The extra long power cord lets you place the base unit up to 9 feet from you wall outlet.



Free $25,000 Equipment Protection Policy

Kensington is so sure their product will protect both your equipment and phones that they back up with The Kensington Limited Lifetime Warranty that protects your equipment for up to $25,000 against damage (see package for details).

- Energy rating: 420 joules (140 each line)
- Clamping voltage: 330V; telephone protection @ 465V
- EMI/RFI filtering: attenuation up to 40dB with frequency range of 600kHz-26MHz
- Size: (outlet strip) 12.5"L x 3.0"W x 3.5"H; (remote) 6.5"L x 2.0"W x 1.0"H
- Current peak: 39,000A • 15A circuit breaker
- 5 outlets/3 switches • Failure indicator light • UL listed

Part No.	Description	Weight	1	5
211203CF	MasterPiece Plus Remote	2.0	$39.95	$35.95

POWERWARE 300-VA UPS System

With Dual Outlet



- Protects against blackouts and brownouts
- Battery charging: less than 6 hours to 90% usable capacity
- Battery backup time: 5–10 mins. @ full load; 10–20 mins. with partial load
- Input voltage: 120VAC @ 60Hz
- Output current: 2.5A (full load) • Output voltage: 120VAC
- Size: 3.4"W x 5.8"D x 13.2"H • Weight: 12.4 lbs.

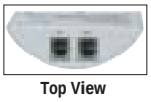
Part No.	Product No.	Description	1	10
179961CF	PRB300A	300-VA UPS system	$59.95	$53.95

RCA Integrated Wall Plate Surge Protectors

RCA delivers a revolutionary breakthrough technology in the RCA Smart Plate™ Surge Protector. These surge protectors replace your traditional wall plate in seconds. An RCA Smart Plate™ (235002CF) is ideal for protecting your satellite / cable TV receivers or antennas from coaxial line surges, and a second unit (234991CF) protects modems, phones and faxes from phone line surges.


235002CF

- $5,000 surge equipment guarantee
- Safe-operation indicator lights
- Size: 10.8"H x 6.9"W x 1.0"D
- 2 outlets
- Noise-filter
- UL/CUL approved


Top View


234991CF

235002CF: Satellite/Cable TV protection
• Cable ready • 670 joules
Includes: 6-foot coaxial cable

234991CF: Modem/Phone/Fax protection
• Internet ready • 410 joules
Includes: 6-foot phone line cord

Part No.	Product No.	Weight	1	6	12
235002CF	SPC300 Satellite/Cable TV	0.7 lbs.	$12.95	$11.95	$10.95
234991CF	SPT300 Modem/Phone/Fax	0.7 lbs.	12.95	11.95	10.95

Single-Line Telephone Filter

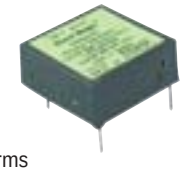
In-line Z-BLOCKER® filter blocks interference between DSL / HPN, voice and RF from cordless phones. Plugs directly into any standard phone jack and works with any single line phone, fax or dial-up modem.



Part No.	Description	1	10	25
196429CF	Telephone filter ... ~~$7.95~~	$4.59	$4.15	$3.79

Black Magic Telephone Ringing Generator

Switching inverter that produces low-frequency alternating current to signal telecom ringers or equivalents.



- Frequency: 20Hz
- Series resistor: 300Ω
- Nominal output voltage: 86 Vrms
- No reverse polarity protection

Part No.	Product No.	1	10	25
145816CF	LBMR12	$26.95	$24.49	$21.95

RJ11/RJ45 Retractable Cables

These auto-reel retractable cables are compact and convenient solutions for the mobile professional.



208362CF

208362CF: RJ11 type
- For telephone and modem applications
- Cord length: 9'6"
- Includes: inline coupler



208371CF

208371CF: RJ45 type, CAT 5e
- For telephone, modem and networking applications
- Cord length: 6'11"

Includes: RJ45 right angle adapter and RJ45 to telephone outlet adapter

Part No.	Description	1	10
208362CF	RJ11 cable ..... ~~$9.95~~	$8.95	$7.95
208371CF	RJ45 cable ..... ~~$19.95~~	16.35	14.85

QUIKLINK Automatic Telephone Ring Down Unit



- Applications: elevator and door entry phones; in-office and off-premise emergency hotlines; tie lines between phones, PABX and Key systems; CO line simulators for sales demonstrations; testing rings, answering, and signal path functions in telecom repairs, installation and production
- Ringing power: 70V @ 20Hz modified square wave
- Power input: 12VAC @ 700mA (max.)
- Line feed type: two wire unbalanced
- Max. loop resistance: 600Ω
- Termination: 4-40 screws
- LED hook status indicator; ringing cadence: continuous/ 1 second on 1 sec. off/ 2 sec. on 2 sec. off/ 2 sec. on 4 sec. off; additional power input: 20-28VDC @ 300mA max.; RJ11 terminations

Part No.	Dimensions	1	10
179936CF	4.2"L x 2.5"W x 0.5"H	$99.95	$89.95

AT&T Fax Switcher



- Features automatic ring reduction, answering system transfer and transfer timer, extension in use detection and calling tone detection, dial pulse/ rotary transfer, unanswered call transfer, reverse modem detection, remote call alert, line interrupt protection, calling tone detection
- System capacity: line-in, answering machine, phone, modem/fax connection
- Size: 4.9"L x 5.1"W x 1.4"H
- Weight: 1.8 lbs.

Includes: 12VAC @ 830mA power supply, 6' 11" telephone cable, and manual

Part No.	Product No.	Description	1	10
152004CF	ATT200A	Fax switch	$24.95	$22.49

External 56kbps Fax/Modem With Digital Answering Machine



- Digital telephone answering machine with voice mail system
- RS-232 (DB9 female) interface
- Modem line speed: 300-56000bps
- Standard compatibility: ITU-T V.92, V.90, V.34, V.32, V.32bis, V.23, V.22bis, V.21 and Bell 103, 212A
- Error correction: ITU-T V.42, MNP2-4
- Data compression: ITU-T 1.42bis, MNP5
- Flow control: RTS/CTS, XON/XOFF
- Comment set: TIA/EIA 602 "AT" command set
- Fax/Modem line speed: 2400~14400bps
- Standard compatibilty: ITU-T V.17, V.27 ter, V.29
- Command set: Class 1, 1.0, 2 and associated AT command sets
- Size: 6.3"L x 4.0"W x 1.3"H

System requirements: Pentium® or PC compatible with 16MB of memory, available RS-232 slot; Windows® 9x/ME/NT4.0/2000/XP

Includes: RS-232 cable (DB25/DB9 female to DB9 male); phone cord, 9VAC@1A power supply, CD-ROM drivers and manual

Part No.	Description	1	10
216493CF	Serial modem (Rockwell)	$49.95	$44.95

Short Haul Modem



- Up to 38,400 baud
- Will communicate over 6.3 miles of cable
- No external power required
- DCE/DTE selectable
- Xon-Xoff or hardware handshaking
- RS-232 interface (DB25 female)

ATEN

Part No.	Description	1	10	25
116581CF	Short haul modem	$29.95	$26.95	$23.95

30-Day Money-Back Guarantee

See page 201 for Addtional Hubs.

PHOEBE *Networking*

Personal Fast Ethernet Switch Hubs



220863CF

- Eliminate bottlenecks and improve your home or small business network with true 100Mbps connection from JAMECO's choice as the best performance/value combination in networking – PHOEBE.
- IEEE 802.3 (10Base-T)/802.3U (100Base-TX) compliant • Store and forward method
- Auto MDI/MDIX, auto negotiation RJ45 ports
- Packet forwarding rate: 10Base-T – 14880pps to 10Mbps; 100Base-TX – 148800pps to 100Mbps
- 8k media access control (MAC) addresses
- Buffer memory size: 256k bytes RAM
- LED indicator for power and link activity

Includes: 7.5VDC @ 1A power supply, installation guide and mounting hardware

Part No.	Description	Size (LxWxH)	1	10
220863CF	5-port	4.9" x 2.9" x 1.2"	$29.95	$28.45
215642CF	8-port	6.7" x 3.9" x 1.2"	49.95	44.95

Wireless LAN Network



Wireless networking provides students, workers & laptop users seamless roaming connectivity to your network or cable modem. PHOEBE 802.11B wireless products are perfect for small businesses, schools and for the home & will boost productivity while saving you the cost and frustration of installing cables throughout your building or home. Simply plug and play and you have a connection to your network in minutes.
Jameco has reviewed a lot of networking products and companies over the last 12 months and has chosen PHOEBE Micro's products because they offer the best value, performance and quality. The wireless access point unit (220652CF) bridges wired and wireless segments of the network. The wireless USB LAN adapter (215618CF) can be used to extend your existing network to remote sites in your building.

- DSSS (direct sequence spread spectrum) provides superior noise immunity to broadband interference
- 11 channels • 64/128bits WEP encryption • Freq. bandwidth: 2.4 ~ 2.4835GHz • IEEE802.11B standard

220652CF	215600CF	215618CF
Transmission power: 18dBm Access point, access point client & wireless bridge operation mode	5MHz Channel spacing PCMCIA Type II; built in 3D antenna Indoor range: up to 150' Outdoor range: up to 900'	Channel spacing: 5MHz Interface: USB1.1 (client) Indoor range: up to 270' Outdoor range: up to 900'

Part No.	Description	Receiver Sensitivity	1	10
220652CF	Wireless access point 11Mbps	-82dBm	$97.95	$91.95
215600CF	PCMCIA wireless network card	-80dBm	52.95	49.95
215618CF	Wireless USB adapter	-80dBm	59.95	54.95

226-Piece Network Connector Kit

Every connector needed by a network field technician to repair a network.



• Size: 10.5"L x 7.0"W x 1.5"H • Weight: 2.5 lbs.

This kit includes:

Quantity	Connector Type
50 pieces (each)	RJ11 solid flat cable (6P4C) RJ11 solid flat cable (4P4C)
25 pieces (each)	RJ11 solid round cable (6P4C) RJ45 solid round cable (8P8C) RJ45 solid flat cable (8P8C)
20 pieces	RJ45 protection caps (assorted colors)
5 (each)	BNC for RG58/U cable BNC for RG59/62/U cable BNC for RG174 cable BNC 50Ω terminator BNC Female-to-female adapter BNC T-adapter male-female-female
1 piece	Storage kit

Part No.	Description	1	10
207079CF	Network connector kit ..... ~~$69.95~~	$49.95	$44.95

Network Starter Kit - Easy/Fast



Everything you need to set up a simple network. No need to worry about compatibility or complicated installations.

- Single chip controller on PCI network card complies to bus specification 2.1 • Auto negotiation capability
- Conforms with IEEE standards
- Shielded RJ45 connector on network card
- On-board socket for an optional remote boot ROM
- LED diagnostic to monitor network conditions
- 5-port hub supports 10/100Mbps
- Power, link/active/speed, FDX/collision indicators for network status • Up-link port for expansion

Includes: Two each PCI network cards, two each 15' straight-through cables, 5-port mini hub, 7.5VDC @ 1A wall transformer, 3.5" disk drivers and manual

Part No.	Description	1	10
208469CF	Network starter kit ..... ~~$64.95~~	$59.95	$53.99

AUI/10BaseT Transceiver



Provides connectivity with work stations equipped with AUI ports to 10BaseT ethernet local area network. Switch selectable SQE (signal quality error) / "Heartbeat Test" to detect collision circuitry in operation.

- IEEE 802.3 10BaseT compliancy
- 4 LED indicators for receive, transmission, collision and link • SQE enable/disable switch
- AUI 15-pin male connector, RJ45 connector
- Size: 2.3"L x 1.7"W x 0.8"H • Weight: 0.2 lbs.

Part No.	Description	1	10
215917CF	Ethernet transceiver	$29.95	$27.95

NETGEAR® 4-Port Firewall Router

11Mbps Cable/DSL



This true firewall is broadband capable, and provide you with the utmost in business class security – Denial of Service (DoS) protection and Intrusion Detection using Stateful Packet Inspection (SPI), URL access and content filtering, logging, reporting, and real-time alerts. With 4 auto-sensing, switched LAN ports and Network Address Translation (NAT) routing, up to 253 users can access your broadband connection at the same time. Smart Wizard and Install Assistant to get your network up and running in minutes.

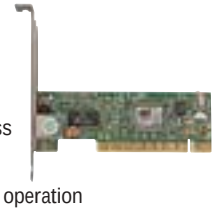
- 4 (LAN) 10/100 auto-sensing ports
- 1 (WAN) 10/100BaseT Ethernet RJ45 port to connect to any broadband modem such as DSL/Cable
- Wireless slot for NETGEAR MA401 PC card
- Security protection: Firewall – SPI (Stateful Packet Inspection), DoS (Denial of Service), IDS (Intrusion Detection System)
- VNP functionality: NAT traversal, PPTP and L2TP
- Model of operation: NAT (Network Address Translation), static routing, unrestricted users per port
- IP address assignment: static IP address assignment, internal DHCP server on LAN, DHCP client on LAN, PPoE client support
- 40/64 and 128-bit WEP encryption
- Smart wizard to automatically detect ISP address type, port range forwarding, exposed host, enable/disable WAN ping, MAC address cloning, NTP support, URL content filtering
- Size: 1.3"H x 7.4"W x 4.9"D
- Weight: 1.8 lbs.

Includes: 10' CAT5 cable, power adapter, user guide & CD-ROM software

Part No.	Description	Price
233331CF	11Mbps cable/DSL firewall router	$99.95

PCI Ethernet Card

10/100Mbps, Auto Detect



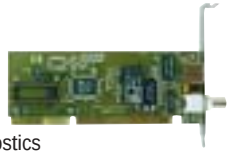
- 32-bit PCI bus mastering for high throughput and low CPU command
- Complies with IEEE 802.3 ethernet standards
- Auto set IRQs & I/O address
- Auto negotiation functions
- Plug & Play installation
- Full duplex and half duplex operation
- RJ45

Includes: 3.5" disk drivers and manual

Part No.	Description	1	10	25
173606CF	RJ45 (10/100Mbps)	$14.95	$13.49	$12.15

ISA Ethernet Card

10Mbps



- Supports Novell NetWare, Windows® NT, LAN Manager, UNIX TCP/IP, Windows® 95/3.1
- LED indicators for diagnostics
- FCC class approved

Includes: 3.5" disk driver

Part No.	Description	1	10
144936CF	RJ45 and BNC	$14.95	$13.49

IBM® 8-Port Ethernet Hub



Designed to the exacting standards of IBM for use in large corporate networks, but its price and easy setup makes it perfect for home or small office use. Compatible with all standard STP, UTP, and FTP cables. Can be cascaded to support larger networks via the MDI (uplink) port. Provides port-by-port link / activity and partition LEDS. Partitions ports automatically when excessive collisions or jabbering are detected.

- Conforms to IEEE 802.3 10Base-T standards
- AUI port allows for connection to 10BASE-2, 10BASE-5, and 10BASE-F Ethernets
- MDI port allows cascading of 8242's with straight through cables
- Crossover ports, automatic partitioning
- Size: 8.7"W x 5.3"D x 1.1"H
- Weight: 1.7 lbs.

Special Purchase
Save $88.00
Was $133.00

Part No.	Product No.	1	10
226149CF	8242	$44.95	$39.95

Professional Rackmount Fast Ethernet Switch Hubs



215837CF

- Eliminate bottlenecks and improve your small business network with true 100Mbps connection from JAMECO's choice as the best performance/ value combination in networking – PHOEBE.
- Store and forward architecture that eliminates error packets
- LED indicators for link/activity
- Deliver non-blocking performance at full-duplex on all ports
- 10/100Mbps RJ45 ports
- IEEE 802.3 10Base-T and 802.3U 100Base-TX
- Filter/forward rate of 148,800 packets/sec
- Power requirements: 100-240VAC
- MDI/MDIX supported
- Size: 17.4"W x 5.5"D x 1.8"H

Part No.	Description	Wt. (lbs.)	1	10
215651CF	16-port	5.3 ..... ~~$95.95~~	$89.95	$85.95
215669CF	24-port	5.7 ..... ~~$169.95~~	165.95	159.95
215837CF	32-port	7.7 ..... ~~$269.95~~	259.95	245.95

NETGEAR® PCMCIA Network Card



Share printers and access to the internet, send and receive email and messages, drag and drop files between computers.

- Auto detection of 10/100Mbps speed (10Base-T / 100Base-Tx)
- Full duplex capability • PCMCIA type II
- Plug and play, easy installation
- LED indicator for 100Mbps activity and link activity

Requirements: 486/Pentium® compatible laptop, PCMCIA slot (type II), Windows® operating system

Includes: 3.5" disk, PCMCIA to RJ45 adapter & cable

Part No.	Description	1	10
210972CF	PCMCIA network card	$29.95	$27.95

UTP Ethernet Cable Tester



- Connector type: RJ45 8P8C
- System used: 258A, 356A, AT&T/Ethernet 10BaseT
- Miswire, open, short tests
- Size 4.5"L x 2.5"W x 1.3"H

Requires: 9V battery (recommend P/N 151095CF, pg 212)

Includes: Zipper case

Part No.	Description	1	10
115895CF	Network Cat. 5 tester	$29.95	$26.95

Modular Cable Tester with Remote Terminator



Easily read correct pin configuration of 10baseT, 10base2, RJ45/RJ11 modular cables, 258A, TIA568A/568B, token ring, etc. Test installed cables either on wall plate or patch panel from a distance.

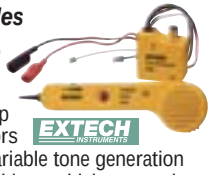
- Check for cable continuity, miswiring, open, short, grounding, and pin configurations
- Cable adapters: RJ45 M-M, 2 RJ45M-BNCM and BNC F-F
- Weight: 0.7 lbs.
- On-board conn.: 2 RJ45F (tester) and 1 RJ45F (remote)
- One-year warranty
- Size: 4.0"L x 2.5"W x 1.0"H (Main console)
- Size: 4.0"L x 1.3"W x 1.0"H (Remote)

Includes: Manual and test cables

Part No.	Description	1	10
145710CF	Modular cable tester	$84.95	$76.49

Tone Generator & Amplifier Probe

For Tracing Wires & Cables



- Tests wire trace, continuity, clear/busy/ringing line, tip/ring identification
- Insulated inductive probe tip prevents shorting conductors
- Selectable continuous or variable tone generation
- Built-in speaker on probe with sensitivity control
- Output jacks for both headphones and handsets

Includes: Alligator test leads, modular phone connector cables, 9V battery, and carrying pouch

Part No.	Description	1	10
198002CF	Tone generatr & amp. probe	$79.95	$71.95

Category 6 Network Cables



- With RJ45 plugs and molded strain reliefs
- Assembled using ETL verified 24AWG stranded cable
- Gold over nickel contacts
- Exceeds performance levels as specified in TIA/EIA 568B.2-1 Category 6 draft 8

Category 6

Part No.	Length	Color	1	10	100
219707CF	3ft.	Gray	$6.29	$5.79	$5.29
219715CF	7ft.	Gray	7.99	7.39	6.79
219723CF	14ft.	Gray	8.99	8.29	7.59
219731CF	25ft.	Gray	13.49	12.39	11.39
219740CF	50ft.	Gray	22.49	20.69	18.99
219854CF	3ft.	Blue	6.29	5.79	5.29
219862CF	7ft.	Blue	7.99	7.39	6.79
219871CF	14ft.	Blue	8.99	8.29	7.59
219889CF	25ft.	Blue	13.49	12.39	11.39
219897CF	50ft.	Blue	22.49	20.69	18.99
220003CF	3ft.	White	6.29	5.79	5.29
220011CF	7ft.	White	7.99	7.39	6.79
220020CF	14ft.	White	8.99	8.29	7.59
220038CF	25ft.	White	13.49	12.39	11.39
220046CF	50ft.	White	22.49	20.69	18.99
219900CF	3ft.	Red	6.29	5.79	5.29
219918CF	7ft.	Red	7.99	7.39	6.79
219926CF	14ft.	Red	8.99	8.29	7.59
219934CF	25ft.	Red	13.49	12.39	11.39
219942CF	50ft.	Red	22.49	20.69	18.99
219803CF	3ft.	Green	6.29	5.79	5.29
219811CF	7ft.	Green	7.99	7.39	6.79
219820CF	14ft.	Green	8.99	8.29	7.59
219838CF	25ft.	Green	13.49	12.39	11.39
219846CF	50ft.	Green	22.49	20.69	18.99
219758CF	3ft.	Black	6.29	5.79	5.29
219766CF	7ft.	Black	7.99	7.39	6.79
219774CF	14ft.	Black	8.99	8.29	7.59
219782CF	25ft.	Black	13.49	12.39	11.39
219791CF	50ft.	Black	22.49	20.69	18.99
219951CF	3ft.	Yellow	6.29	5.79	5.29
219969CF	7ft.	Yellow	7.99	7.39	6.79
219977CF	14ft.	Yellow	8.99	8.29	7.59
219985CF	25ft.	Yellow	13.49	12.39	11.39
219993CF	50ft.	Yellow	22.49	20.69	18.99

19" Rack Mount CAT 6 Patch Panels

For the Maximum Network Performance



Our CAT 6 patch panels feature 110D punch blocks that are compatible with KRONE or 110-impact tool. The RJ45 jacks are top entry type; PBT UL94 V0 rated. UL/CUL listed and CAT 6 certified. Can be used with T568 A/B installations. Color-coded to T568 specifications.

Part No.	Description	1	10
229518CF	24-port patch panel	$129.95	$129.95
229526CF	48-port patch panel	239.95	215.95

19" Rack Mount Patch Panels



Our CAT 5 patch panels feature 110D punch blocks that are compatible with KRONE or 110D tool. UL and CUL listed and certified, CAT 5 certified and can be used with T568 A/B installations. Blocks are color coded for T568 color-coding, and easy wire management.

Part No.	Description	1	10
208768CF	12-port patch panel ~~$45.95~~	$35.95	$32.95
208784CF	24-port patch panel	65.95	59.95

Net Toner and Probe Kit



With testing functions such as sending tones, verifying lines, indicating line conditions, identifying tip and ring, providing "talk" battery and testing continuity, you can use this kit on single conductor, twisted pairs, coaxial cables, and energized electrical wiring. Great for installing or troubleshooting telephone, data, security/alarm, heating and air, audio/visual, and electrical systems. Connections include alligator clips, RJ45 jacks and RJ12 plugs.

Includes: Padded zipper case w/ belt loop & spare tips

Part No.	Description	1	5
227897CF	Net toner & probe kit	$79.95	$76.95

PC Testing & Diagnostics

Computer Monitor & NTSC Tester

Mac, PC and TV



- Tests VGA, Super VGA, Mac monitors and TVs
- Checks full-field color bars, color raster, dots (static and dynamic convergence), cross-hatch and windows (power supply regulation, checks for a clear distinction between white and black portions)
- Connectors: HDDB15F, DA15F
- Two video conn. for TV, composite and S-video
- Power with either a 9V battery or an external DC adapter (recommend P/N 151095CF, pg 212 or P/N 100845CF, pg 55)
- Size: 5.5"L x 3.0"W x 1.4"H
- Weight: 0.7 lbs.
- One-year warranty

Part No.	Description	1	10
149729CF	Computer monitor tester	$189.95	$179.95

Diagnostic Card for PCI-Bus Systems



This is the first diagnostic card for monitoring Power-On-Self-Test results in systems using PCI-Bus architecture.

- Plugs into any PCI I/O slot
- Digital indicators for every POST code error
- LEDs for monitoring power (DC): +12, -12, +5, +3
- LEDs for clock and reset failure
- Comprehensive manual w/ error codes from all major BIOS manufacturers including AMI, AWARD, PHOENIX and more
- One-year warranty

Part No.	Description	1	10
135108CF	PCI-POST diagnostic card	$219.95	$197.95

PC Diagnostic Software "Quicktech '98"

Self-booting software for 386, 486 and Pentium® II/MMX/III/AMD Athlon



- Verify proper operation and troubleshoot failures of all major PC components: hard drives (MFM, RLL, IDE, SCSI); floppy drives; base, extended and external cache RAM; VGA/EGA/VESA compliant video cards; keyboard; monitor; printer; and I/O ports
- 48 hour burn-in mode for lengthy testing
- Floppy drive head cleaning function

Includes: Loopback testers for DB9 and DB25 serial and DB25 parallel ports, manual and 3.5" disk

Part No.	Description	1	10
134826CF	QuickTech '98 software	$148.95	$134.95

Category 5e Network Cables


201734CF


201777CF


201697CF


201814CF

- 4 pair
- 24 AWG (7 x 43) stranded
- UTP • 8P8C
- "Snagless" boot
- Color coded for easy wire tracing
- High-flexibility
- Achieve optimum system performance

Category 5e (350MHz)

Part No.	Description	Color	1	10	100
168292CF	3ft. cable RJ45	Gray	$1.79	$1.49	$1.39
168305CF	7ft. cable RJ45	Gray	2.99	2.59	2.39
168313CF	15ft. cable RJ45	Gray	5.29	4.39	3.99
168321CF	25ft. cable RJ45	Gray	7.99	6.79	6.39
201777CF	3ft. cable RJ45	Red	1.79	1.49	1.39
201785CF	7ft. cable RJ45	Red	2.99	2.59	2.39
201793CF	15ft. cable RJ45	Red	6.95	6.39	5.69
201806CF	25ft. cable RJ45	Red	7.99	6.79	6.39
201697CF	3ft. cable RJ45	Black	1.79	1.49	1.39
201700CF	7ft. cable RJ45	Black	2.99	2.59	2.39
201718CF	15ft. cable RJ45	Black	5.29	4.39	3.99
201726CF	25ft. cable RJ45	Black	7.99	6.79	6.39
201734CF	3ft. cable RJ45	Blue	1.79	1.49	1.39
201742CF	7ft. cable RJ45	Blue	2.99	2.59	2.39
201751CF	15ft. cable RJ45	Blue	5.29	4.39	3.99
201769CF	25ft. cable RJ45	Blue	7.99	6.79	6.39
201814CF	3ft. cable RJ45	Yellow	1.79	1.49	1.39
201822CF	7ft. cable RJ45	Yellow	2.99	2.59	2.39
201831CF	15ft. cable RJ45	Yellow	5.29	4.39	3.99
201849CF	25ft. cable RJ45	Yellow	7.99	6.79	6.39

Category 5 (100MHz)

Blow-out Prices!

Part No.	Description	Color	1	10	100
175273CF	7ft. cable RJ45	Gray (was $4.75)	$1.49	$1.35	$1.25
124732CF	7ft. cable RJ45	Red	1.49	1.35	1.25
203051CF	10ft. cable RJ45	Blue	1.95	1.69	1.25
170190CF	25ft. cable RJ45	Blue	3.55	3.05	2.29

Telecom Splice Connectors

- Provides clean, solid, and rapid connection of wires to keep communication lines free of noise
- Available to handle a wide range of conductor sizes

169754CF: Y-Type

- **Prepackaged: order in increments of 10, 100 or 1000**


169754CF


169746CF

Part No.	Color	Wire Gauge	No. of Conductors	10	100	1000
169746CF	Yellow	22–26	2 (was $0.19)	$.11	$.10	$.08
169754CF	Red	19–26	3Y	.15	.14	.12

Token Ring-to-RJ45 Adapter

- Easy connection to UTP cabling
- Use type A or B style data connector with RJ45 jack
- Determine cable length (flexibility)
- Dimensions: 2.5"L x 1.0"W

SALE



Part No.	Description	1	10	100
125461CF	Token ring (was $11.95)	$6.55	$5.95	$5.39

Keystone-Type Wall Plates


195549CF 195557CF 212986CF 212960CF

- Size: 2.8"W x 4.5"H

Part No.	No. of ports	Color	1	10	100
195549CF	1	Ivory	$1.25	$1.15	$.99
195557CF	2	Ivory	1.25	1.15	.99
195565CF	3	Ivory	1.25	1.15	.99
195573CF	4	Ivory	1.25	1.15	.99
212978CF	1	White	1.25	1.15	.99
212994CF	2	White	1.25	1.15	.99
212986CF	3	White	1.25	1.15	.99
212960CF	4	White	1.25	1.15	.99
213508CF	Hole filler	White	.28	.25	.23

Modular Jacks

Punchdown Keystone Type

- Removable jacks used in wall plates (clip in)
- CAT 5e classification
- Punchdown type wiring connections with color coding
- Size: 0.57"W x 0.63"H x 1.23"D

RJ45: 8P8C **RJ11:** 6P6C


212943CF


213516CF

RJ45

Part No.	Color	1	10	100
195590CF	Red	$3.59	$3.39	$3.19
195602CF	Yellow	3.59	3.39	3.19
195611CF	Green	3.59	3.39	3.19
195629CF	Black	3.59	3.39	3.19
195637CF	Ivory	3.59	3.39	3.19
212951CF	Blue	3.59	3.39	3.19
212943CF	White	3.59	3.39	3.19

RJ11

Part No.	Color	1	10	100
213524CF	Black	$3.59	$3.39	$3.19
213516CF	White	3.59	3.39	3.19

BNC/F-Type Jacks


195645CF


224637CF

SALE

- Removable jacks used in wall plates (see above)
- Clip on for easy installation on wall plates
- Keystone type

Part No.	Description	Color	1	10	100
195645CF	F-Type F to F	Ivory (was $2.49)	$1.39	$1.29	$1.19
224645CF	F-Type F to F	White	1.39	1.29	1.19
195653CF	BNC F to F	Ivory (was $4.95)	2.29	2.05	1.89
224637CF	BNC F to F	White	2.29	2.05	1.89

CAT 5e Crossover Cable

- Connect 2 PCs without a hub
- 24AWG (7 x 43) stranded
- Strain relief RJ45 connectors
- 4-pair • 8P8C • UTP



Part No.	Description	1	10	100
169261CF	10' cable RJ45, gray	$6.95	$6.25	$5.59

Bulk Modular Network Cables

- 8 Conductor • UTP
- 4 twisted pairs
- Insulation: polyethylene
- Nom. OD.: 189"
- Nominal impedance: 100Ω


118130CF

Solid: uses modular plug P/N 119343CF, pg 205
Stranded: uses modular plug P/N 79281CF, pg 205
118130CF/201646CF: 7/32 AWG

- **Prepackaged and priced in increments of 25' or 100'**

24 AWG UTP Category 5e – 350MHz

Part No.	Description	25 ft.	100 ft.	1000 ft.
176225CF	Solid (gray)	$5.00	$17.00	$100.00
201603CF	Solid (blue)	5.00	14.00	90.00
176233CF	Stranded (gray)	6.00	21.00	180.00
201574CF	Stranded (red)	6.00	18.00	160.00
201591CF	Stranded (black)	6.00	18.00	160.00
201582CF	Stranded (blue)	6.00	18.00	160.00
201566CF	Stranded (yellow)	6.00	18.00	160.00

24 AWG UTP Category 5 – 100MHz

Part No.	Description	25 ft.	100 ft.	1000 ft.
118113CF	Solid (gray)	$4.59	$16.49	$129.50
118130CF	Stranded (gray)	5.95	19.35	164.50
201646CF	Stranded (black)	5.50	15.00	140.00

Modular Jack Boxes & Wall Plate

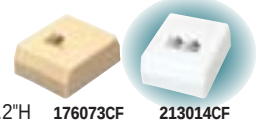

Fig. 1 (72311CF) W: 2.8" H: 4.5"
Fig. 2 (71651CF) W: 2.0" H: 2.2" D: 0.9"
Fig. 3 (213031CF) W: 1.5" H: 2.4" D: 1.1"
Fig. 4 (213049CF) W: 2.4" H: 2.4" D: 1.1"

Part No.	Description	Fig.	1	10	100
72311CF	6P6C & 8P8C double wall jack plate w/ jacks (beige)	1	$1.95	$1.75	$1.57
103464CF	6P4C adhesive jack RJ11 (beige)	2	1.39	1.19	1.09
71984CF	6P6C adhesive jack RJ11 (beige)	2	1.39	1.19	.99
71651CF	8P8C adhesive jack RJ45 (beige)	2	1.95	1.65	1.45
213031CF	8P8C adhesive jack RJ45 (single, white) (CAT 5e)	3	3.29	2.99	2.69
213049CF	8P8C adhesive jack RJ45 (dual, white) (CAT 5e)	4	4.15	3.75	3.39

Surface Mount Boxes

Category 5 and 5e

- RJ45
- 8P8C
- 100MHz
- Size: 2.6"L x 3.2"W x 1.2"H
- CAT 5e (except P/N 176073CF)


176073CF 213014CF

Part No.	Description	1	10	100
176073CF	Single jack (beige)	$6.95	$6.25	$5.59
213022CF	Single jack (white)	6.95	6.25	5.59
176081CF	Dual jack (beige) (was $10.99)	9.99	8.99	8.09
213014CF	Dual jack (white) (was $10.99)	9.99	8.99	8.09

Corporate Customers

Opening an account is easy!!
Call 1-800-831-4242
for details today.

Computer

Slim-Line D-Sub Gender Changers


18497CF


56071CF


18446CF

For Confined Applications!

These revolutionary slim-line gender changers are only 0.69" wide, eliminating the space problems caused by standard gender changers. When plugged into your existing cable, they add only 0.44" to the cable. All-metal cases.

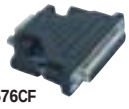
- Captive locking screw (male)
- Captive locking nut (female)
- Grounding tangs (male)

Part No.	Description	1	10	100
18497CF	9-pin male	$4.95	$4.49	$3.99
18489CF	9-pin female	4.95	4.49	3.99
56071CF	15-pin male	3.95	3.49	2.95
56063CF	15-pin female	3.95	3.39	2.55
119319CF	15-pin female HD	~~$4.95~~ 4.29	3.89	3.49
119301CF	15-pin male HD	4.95	4.49	3.95
18446CF	25-pin male	4.95	4.49	3.99
18420CF	25-pin female	4.95	4.49	3.99
170085CF	25-pin M-F (pass through)	2.95	2.55	1.89

D-Sub 9-Pin to 25-Pin Serial Adapters

10305CF: For use in AT or other computer systems that have 9-pin D-sub serial ports.
153576CF/10321CF/163740CF: For PC/XT systems with DB25 serial ports.
154683CF: 4-40 x .24" hex nut (4)
189632CF: thumbscrews
139985CF: gold-plated contacts, extra long thumbscrews


10305CF


153576CF

Part No.	Description	1	10	100
10305CF	DB9 F to DB25 M	$3.49	$2.99	$2.25
163740CF	DB9 M to DB25 F, thumbscrews on DB9 side only	2.85	2.45	1.85
153576CF	DB9 M to DB25 F, thumbscrews on DB25 side only	3.95	3.59	2.99
10321CF	DB9 M to DB25 F	4.49	3.79	3.19
154683CF	DB9 F to DB25 F	2.49	2.15	1.59
189632CF	DB9 M to DB25 M	3.49	3.15	2.85
139985CF	DB9 F to DB25 F	3.95	3.55	3.19

6-Pin Male Mini DIN to 9-Pin Male D-Sub Adapters


100335CF



180523CF

Pin-to-pin connections:

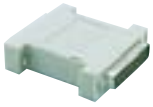
6-pin male mini DIN	1	2	3	4	5	6
9-pin male D-sub						
100335CF	1	—	3, 9	2, 5, 7	6	—
180523CF	2	3	5	4, 7	5	—

- Color: beige
- Size: 1.6"L x 1.3"W

Part No.	Description	1	10	100
100335CF	W/ thumbscrew	$2.19	$1.95	$1.75
180523CF	Cable adapter (1 ft.)	~~$4.95~~ 1.15	1.05	.95

Standard D-Sub Gender Changers


16643CF


22058CF

- Standard 9- and 25-pin D-sub male and female gender changers for interfacing two cables or connectors of the same gender

Part No.	Description	1	10	100
16635CF	D-sub 9-pin male	$1.95	$1.75	$1.49
16643CF	D-sub 9-pin female	1.95	1.75	1.49
22058CF	D-sub 25-pin male	1.95	1.49	1.05
22074CF	D-sub 25-pin female	1.99	1.79	1.65

AT and PS/2 Keyboard Adapters


159089CF


159097CF


157930CF

159089CF/189771CF: AT keyboard adapter
- Connects PS/2 keyboard to AT
- 6-pin female mini DIN to 5-pin male DIN


189771CF

159097CF/157930CF: PS/2 keyboard adapter
- Connects AT type keyboards to the PS/2
- 5-pin female DIN to 6-pin male mini DIN (PS/2)

Part No.	Length	Housing	1	10	100
159089CF	1.6"	Metal	$2.95	$2.65	$2.39
159097CF	1.4"	Metal	~~$3.49~~ 2.95	2.65	2.39
157930CF	1.7"	Plastic/metal	3.49	2.65	2.39
189771CF	1.7"	Plastic	~~$3.49~~ 2.95	2.65	2.39

15-Pin to 9-Pin VGA Adapter



- Adapts 15-pin VGA to 9-pin output
- Male HDDB15 to female DB9 adapter

Part No.	Description	1	10	100
75264CF	VGA adapter	$2.69	$2.45	$2.25

Laptop Computer Power Cord

- 2-conductor power cord for laptop computers
- 18/2 AWG • 6' cord
- Flat junior duty type cord



Part No.	Description	1	10
189587CF	6' laptop power cord	$2.95	$2.49

Macintosh® to IBM Monitor Adapters and Cables

Allows use of Macintosh® computer with IBM monitor (DA15 male to HDDB15 female).

126439CF:
- 10 position DIP-switch supports 6 kinds of signal modes and resolutions
- Size: 2.0"L x 1.5"W
- One-year warranty



126439CF

183345CF:
- DA15 female to HDDB15 male
- Size: 2.2"L x 1.6"W x 0.6"H

Part No.	Description	1	10	25
126439CF	Mac to IBM adapter	$8.95	$7.95	$6.95
183345CF	Mac to IBM (SVGA)	~~$5.95~~ 2.69	2.45	2.19

Full Handshaking Null Modem Adapters

Self-contained null-modem (cross-over) adapters. Change any standard straight cable into a null cable quickly and easily.

Internal pin configuration:
17224CF: 1-1, 2-3, 3-2, 4-5, 5-4, 6-20, 20-6, 7-7, 8-20
26243CF: 1-1, 2-3, 3-2, 4-8, 8-4, 5-8, 8-5, 6-20, 20-6, 7-7


26243CF

Part No.	Description	1	10	100
26243CF	DB25 M to DB25 F	$3.95	$3.65	$3.49
17224CF	DB25 F to DB25 F	3.49	2.95	2.49

IEEE 1284 Parallel & Serial Cables for High Speed

The IEEE 1284 is the standard in high speed printing. Compatible w / bidirectional communication data flow resulting in speeds up to 10 times faster than conventional applications.

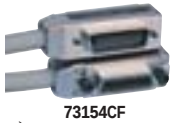

130067CF

- Double shielded with 28 AWG stranded twisted pair inner conductors • Molded shells, PVC plastic
- Color: beige (P/N 130067CF/168233CF); black (P/N 161630CF); gray (P/N 172304CF/223845CF)
- Weight: 0.6 lbs.

Part No.	Description	1	10
130067CF	6' DB25 M-Cent. parallel 36M	$11.95	$10.95
223845CF	6' DB25 M-Cent. parallel 36M	11.95	10.95
168233CF	6' DB25 M-F parallel cable	~~$12.95~~ 6.95	5.95
161630CF	10' DB25 M-M serial cable	14.95	13.49

IEEE 488 Cables

A variety of cable lengths are offered to ensure that the IEEE system requirements are met (20 meters maximum length with a maximum of 15 devices). These cables are standard IEEE 488 cables with stackable 24-pin GPIB connectors on both ends.


73154CF

- Color: gray

Part No.	Description	Wt. (lbs.)	1	10	25
73154CF	1 meter	0.8	$36.49	$32.79	$29.49
115781CF	2 meter	1.2	37.95	34.19	30.95
115801CF	4 meter	2.0	34.95	29.75	22.29

Apple Macintosh® Printer Cables


10604CF


130024CF

Part No.	Description	1	10	50
10604CF	6' mini DIN8M	~~$5.95~~ $4.95	$4.45	$3.99
130024CF	10' mini DIN8M	5.99	5.39	4.85

See the yellow and green highlighted items.

Jameco Special Values!

Details on page 3.

Modular Plugs



P = No. of positions
C = No. of contacts
W/E = Western Electric type number

✳ **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Description	W/E	1	10	100	1000
103491CF	4P4C (handset)	616	✳	$.11	$.079	$.067
79290CF	6P4C (RJ11)	623	✳	.12	.11	.095
79273CF	6P6C (RJ11)	623	✳	.22	.195	.18
79281CF	8P8C (RJ45) (for stranded wire)	641	✳	.28	.24	.20
119343CF	8P8C (RJ45) unshielded (for solid wire)	—	.49	.44	.35	.28
116610CF	8P8C (RJ45) shielded	—	1.09	.99	.89	.79
204222CF	8P8C (RJ45) shielded (for STP solid wire)	—	1.49	1.35	1.25	1.09
204231CF	8P8C (RJ45) shielded (for STP stranded wire)	—	1.69	1.55	1.39	1.25
116601CF	8P8C (RJ45) shielded (for solid wire)	—	.99	.85	.69	.55
180646CF	10P10C (for stranded wire)	—	1.39	1.15	.82	.69

Modular Jacks



SALE

- PC mount
- Voltage rating: 150 volts AC max.
- Contact current rating: 1.5 amp max. @ 25˚C
- Durability: 750 mating cycles

W/E = Western Electric type number

Part No.	Description	W/E	1	10	100
199620CF	4P4C (handset) .48"W	—	$.36	$.33	$.30
115128CF	4P4C (handset) .395"W	—	.37	.34	.31
151765CF	6P4C (RJ11) side flange	AMP	.45	.43	.39
105945CF	6P4C (RJ11) top flange	623	.62	.52	.45
204206CF	6P4C (RJ11) lead wires	—	1.09	.99	.89
115836CF	6P6C (RJ11) side flange	—	.74	.67	.59
204177CF	6P6C (RJ11) dual	—	1.49	1.35	1.19
124038CF	6P6C (RJ11) 6" leads	—	1.25	1.15	.99
115844CF	8P8C (RJ45)	641	.48	.44	.40
204185CF	8P8C (RJ45) w/ key	—	.65	.59	.53
204193CF	8P8C (RJ45) w/o key	—	.65	.59	.53
204214CF	8P8C (RJ45) .81"L	—	1.19	1.09	.95
167290CF	8P8C (RJ45) top flange	—	.39	.35	.30
203449CF	8P8C (RJ45) shielded Pin spacing "A" = .055"	—	1.19	.99	.85

"EZ" RJ45 Connector



Strip the wire and insert into the plug and pull out the wire on the other side. This ensures correct conductor order and uniformity in crimping. No wire bar and no wasted cable.

- For solid or stranded wire
- Use standard modular crimping tool
- 8P8C plug

Part No.	Product No.	1	10	100	250
158115CF	RJ45 (8P8C)	$1.75	$1.58	$1.42	$1.25

Modular Couplers and Adapters

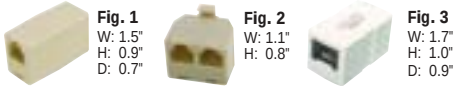


Fig. 1 W: 1.5" H: 0.9" D: 0.7"

Fig. 2 W: 1.1" H: 0.8"

Fig. 3 W: 1.7" H: 1.0" D: 0.9"

Style 1 Reverse wiring for telephone systems

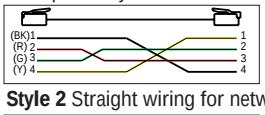
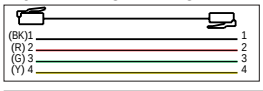




Fig. 4 W: 1.0" H: 1.0" D: 2.0"

Style 2 Straight wiring for networking/printer sharing



Part No.	Description	Fig.	1	10	100
72207CF	6P4C male "T" adapter, Style 2. Provides 2 jacks from 1 line. Male modular plug (6P4C), 2 female modular receptacles (6P4C) RJ11	2	$.99	$.85	$.65
71757CF	6P6C modular coupler, Style 1, RJ11	1	.95	.86	.79
135087CF	6P6C modular coupler, Style 2, RJ11	1	.99	.85	.65
181091CF	6P6C male "T" adapter, Style 2. Provides 2 jacks from 1 line. Male modular plug(6P6C), 2 female modular receptacles (6P6C) RJ11	2	.99	.89	.78
118501CF	8P8C modular coupler, Style 1, RJ45	1	1.95	1.79	1.59
135079CF	8P8C modular coupler, Style 2, RJ45	1	1.39	1.25	1.15
153023CF	8P8C modular coupler, Style 2 (for Cat. 5) RJ45	3	7.99	7.19	6.49
172814CF	8P8C modular coupler, Style 1 (for Cat. 5) RJ45	4	7.49	6.75	6.09

RJ45-Plug Color Caps (Boots)



204425CF

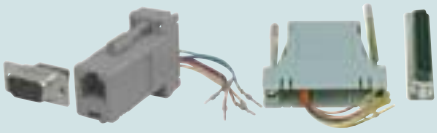
- Round strain relief • 10 piece minimum

Part No.	Description	10	50	100
204409CF	Black	$.14	$.12	$.115
204388CF	Yellow	.14	.12	.115
204353CF	Gray	.14	.12	.115
204361CF	Blue	.14	.12	.115
204425CF	Red	.14	.12	.115
204396CF	Green	.14	.12	.115
204370CF	Ivory	.14	.12	.115

For more RJ45 Plug Boots See www.Jameco.com



RS-232-to-RJ11/RJ45 Modular Jack Adapters



Change your RS-232 port to a RJ11 or RJ45 modular jack. This will allow you to use modular phone cable rather than RS-232 cable, thus simplifying networking applications. Comes complete with all necessary wiring and hardware.

Part Number	Description	Pricing 1	10	100
204265CF	DB9 M to RJ11(6P4C)	$1.95	$1.75	$1.49
66181CF	DB9 M to RJ11(6P6C)	2.59	2.35	2.09
66190CF	DB9 M to RJ45(8P8C)	2.89	2.65	2.35
114737CF	DB9 F to RJ11(6P4C) $2.49	1.95	1.79	1.59
66202CF	DB9 F to RJ11(6P6C)	2.79	2.55	2.29
66211CF	DB9 F to RJ45(8P8C)	2.99	2.69	2.45
204281CF	DB25 M to RJ11(6P4C)	2.39	2.15	1.29
66229CF	DB25 M to RJ11(6P6C)	2.95	2.35	1.99
66237CF	DB25 M to RJ45(8P8C)	2.99	2.69	2.45
204273CF	DB25 F to RJ11(6P4C)	1.95	1.69	1.25
66245CF	DB25 F to RJ11(6P6C)	2.59	1.95	1.39
66253CF	DB25 F to RJ45(8P8C)	2.89	2.59	2.29

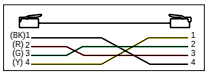
Modular Telephone/Printer Sharing Cables (Gray)

- RJ11 – 6P2C/6P4C for telephone or network
- RJ11 – 6P6C for telephone or printer sharing
- RJ45 – 8P8C for telephone or modem-dial-up use

Style 1 – Reverse wiring for telephone systems
Style 2 – Straight wiring for networking/printer sharing

Low Cost Data/ Phone Cables

Style 1



Style 2





✳ 10 pc. min.

Part No.	Conn. Style	Type	Length	Pricing 1	10	100
195733CF	1	RJ11-6P2C*	7ft.	$.39	$.35	$.31
189940CF	1	RJ11-6P2C	7ft.	.99	.85	.65
189931CF	1	RJ11-6P4C	1ft.	✳	.09	.06
196226CF	1	RJ11-6P4C	7ft.	1.49	1.15	.79
115553CF	2	RJ11-6P4C	7ft.	1.25	1.09	.89
205903CF	1	RJ11-6P4C†	14ft.	1.25	1.09	.99
115545CF	1	RJ11-6P4C	25ft.	2.29	2.09	1.85
201232CF	2	RJ11-6P4C†	35ft.	1.95	1.79	1.59
115588CF	1	RJ11-6P6C	7ft.	1.55	1.35	1.15
115617CF	2	RJ11-6P6C	7ft.	2.19	1.99	1.79
115676CF	2	RJ45-8P8C	7ft.	1.89	1.75	1.49
115684CF	2	RJ45-8P8C	14ft.	2.95	2.69	2.39

* Black † Beige

For new Category 6 cables see page 202



Computer

5.6" Color TFT Monitor

NTSC Format



- TFT color LCD display
- 224 x 640 pixel display resolution
- Built-in 1 watt speaker
- Brightness, color and volume adjustments
- Video input: 1.0Vp-p; 75Ω
- Audio input: 2Vp-p; 2kΩ
- Size: 6.1"W x 4.8"H x 1.2"D • Weight: 2.6 lbs.

Includes: RCA cable, mounting stand with hardware and 12VDC @ 500mA power supply

Part No.	Description	1	10
201702CF	5.6" TFT color monitor	$279.95	$259.95

4" TFT LCD Monitor

NTSC Format



- TFT color LCD
- Resolution 234 x 383dpi
- Backlight: cold cathode fluorescent lamp
- Power source: 12VDC @ 400mA
- 5" long lead wire with 4 position molex type power connector
- Tint color and brightness adjustable
- Size: 4.1"L x 3.3"W x 0.7"H (display)
- Size: 4.7"L x 3.3"W x 1.3"H (unit) • Weight: 0.7 lbs.

Part No.	Description	1	10
172742CF	4" color LCD monitor	$159.95	$149.95

Video Text Display Module

NTSC composite (1Vp-p, 75Ω)



- Serial data input: 2400-19.2kbps
- 30-pin SIMM form factor (socket supplied)
- Compatible with Parallax Basic Stamp®, see pg 210
- Auto-switching genlock overlay or internal video generation
- Power supply: +8-16VDC @ 65mA input, 5VDC aux. output (regulated)
- Displays up to 308 characters (11 lines of 28)
- 12 x 18 pixel character pattern
- Asynchronous serial input only @ 9600bps
- Size: 3.5"L x 1.1"H

Part No.	Mfr. Cross Ref. No.	1	10	25
162051CF	BOBII ~~$79.95~~	$69.95	$62.95	$56.65

SMK RF Modulator



- Output frequency: NTSC Ch. 3/4, switch selectable
- 12VDC RF modulator
- Operating voltage: 12V@ 50mA max.
- RF output impedance: 75Ω (F-type connector)
- Video modulation: 1.0V p-p
- Audio FM deviation: 1.4V p-p
- PC connections: solder tab connectors
- Size: 1.7"L x 1.7"W x 0.7"H • MFG. #: WMN2144-01

Part No.	Description	1	10	50	100
141639CF	RF modulator	$4.95	$4.49	$3.59	$2.65

30-Day Money-Back Guarantee

SONY® Color CCD Camera

Sony Chipset



- 1/4" Sony super HAD CCD sensor
- NTSC system with 510(H) x 492(V)
- Furnished mini lens: 3.6mm
- Minimum illumination: 0.5 lux @ F2.0
- Signal to noise ratio: >48dB • 330 TV lines
- Supports these functions: auto electronic shutter (AES), auto iris control (AIC), auto gain control (AGC), auto white balance (AWB), back light compensation (BLC) and flicker less (FL)
- Video drive iris control; high/low switchable auto gain control; on/off backlight compensation
- Internal, negative synchronous system
- Video output: 1Vp-p; 75Ω

Requires: 12VDC @ 120mA power supply (recommend P/N 100095CF, pg 55)

Includes: Power/signal cable & mounting hardware

Part No.	Description	1	10
213436CF	Enclosed color camera	$179.95	$161.95

Mini Enclosed Color NTSC Camera



- 1/4" CCD Sensor
- 350 horizontal TV lines
- 1 lux/F2.0
- Electronic shutter: up to 1/120,000 sec.
- NTSC system with 512(H) x 492(V)
- Scanning system: 2:1 interlace
- Signal to noise ratio: 48dB • Lens: 3.7mm/F2.0
- Video output: 1Vp-p, 75Ω • FOV: 92˚
- Size: (enclosure) 1.3"L x 1.1"W x 0.9"D
- Weight: 0.3 lbs. • Two-year warranty

Requires: 9VDC – 12VDC @ 500mA power supply (recommend P/N 100853CF, pg 55)

Includes: BNC/Power cable and mounting hardware

Part No.	Description	1	10
215423CF	Mini enclosed camera	$129.95	$119.95

Color Interline Camera

Water Resistant with Adjustable Mounting Bracket



- EIA format
- 1/3" CMOS image sensor
- EIA format: 512(H) x 492(V)
- 330 horizontal line resolution
- 2:1 scanning interlace system
- 5 lux sensitivity
- Video output: 1V p-p; 75Ω • 6mm lens/F2.0
- S/N ratio: 40dB • FOV: 530
- Electronic shutter: 1/60 – 1/1,200 sec.
- Connectors: 1 standard RCA female jack for video, and in-line 2.1mm power-plug connector for power supply • Size: 2.6"L x 0.9"Dia.

Includes: Adjustable mounting bracket, instruction sheet and 9V @ 100mA power supply

Part No.	Description	1	10
185017CF	Color camera	$99.95	$89.95

Color Camera Board

NTSC Format



- 1/3" CCD image sensor
- 5.0 lux • FOV: 92˚
- 3.6mm lens/F2.0 • 330 TV lines
- Low power consumption
- Automatic exposure, gain and white balance
- Size: 1.0"L x 0.9"W x 1.1"H

Part No.	Description	1	10
171011CF	Camera board	$73.95	$66.59

SONY® Black & White Low-Light Camera

Sony Chipset



- Signal to noise ratio: >48dB
- Requires 12V power source (not included)
- 6" wires with 4-pin Molex-type keyed connector
- EIA system 537(H) x 505(V)
- Composite output with 420 line resolution • Lens: 3.6mm
- Shutter speed: 1/60 - 1/1000 • FOV: 92.6˚
- Video output: 1.0Vpp composite video/75Ω
- Size: 1.3"L x 1.3"W x 1.0"H • One-year warranty

150931CF

Part No.	Description	1	10	25
150931CF	Camera board	$89.95	$80.95	$71.95
159071CF	8mm lens 38.6° ~~$24.95~~	17.95	17.10	16.25

Black & White Camera

EIA Format



- 1/3" CCD image sensor
- 510(H) x 492(V) • S/N ratio: 46dB
- Horizontal resolution: >350 lines
- Scanning system: 2:1 interlace
- Sensitivity: 0.7 lux/F2.0
- Video output: 1Vp-p, composite video 75Ω
- Power supply: 12VDC (recommend P/N 162996CF, pg 54)
- Size: 1.3"L x 1.3"W x 1.2"H
- Power consumption: 110mA • FOV: 92˚
- Electronic shutter: 1/125,000 sec. (linear)

Part No.	Description	1	10
171029CF	Camera board	$47.95	$42.95

10" Black & White Security Monitor with Audio



- EIA format
- 9" viewable screen
- Resolution: 700 line
- Push down front panel for vertical size, brightness, volume, and contrast adjustments, power switch
- Horizontal frequency, focus and sub-brightness adjustment, impedance input switch, 1 BNC female & 1 RCA jack for audio/video input/output
- Input voltage: 120VAC @ 60Hz (2-prong 5' cable)
- Size: 9.3"W x 12"D x 9.1"H • Weight: 15 lbs.

Includes: Manual

Part No.	Description	1	10
192719CF	10" black & white monitor	$119.95	$95.95

Audio/Video Adapters (CAT 5 UTP)



210471CF

- Converts impedance of video/audio signals to 100Ω for transmission over CAT 5 UTP cable
- Supports both NTSC or PAL video signals
- Built-in impedance matching device and filter for video and audio signal transmission
- Use with existing premises wiring and wall jacks for easy and cost effective installation
- Video transmission distance: 1000' color/2000' B/W

210471CF: Signal pair: video (BNC), CAT pair 1 (RJ45)
220880CF: Signal pairs: video (BNC), CAT pair 4 (RJ45); audio 1 (RCA); CAT pair 3 (RJ45); audio 2 (RCA), CAT pair 2 (RJ45)

Includes: 1 RCA to BNC adapter & 2 mounting screws

Part No.	Connector Type	1	10
210471CF	BNC/RJ45	$29.95	$26.95
220880CF	BNC/RCA/RJ45	42.95	38.95

2.4GHz Wireless Fully Automatic Color CCD Camera

With AES/AI Video Drive



- Auto electronic shutter (AES): 1 to 1/100,000 sec.
- Auto iris (AI) control video drive switchable
- Color; NTSC format; 2.0 lux/F1.2
- 380 TV line resolution
- S/N ratio: more than 48dB
- Scanning system: 2:1 interlace
- 1/3" CCD interline sensor • 512(H) x 492(V)
- Video output: 1Vp-p / 75Ω
- Imp. output: 75Ω typical
- Size: 4.0"L x 2.2"W x 2.0"H • Weight: 2.1 lbs.

Includes: 15VDC power supply, antenna, mounting bracket and manual

208645CF: Auto iris direct drive lens
- FOV: 46˚ • Aperture: ±4F = 1.4 ~ 64
- Use with receivers 169631CF or 192866CF (pg 207)

Part No.	Description	1	10
174810CF	Color camera ..... ~~$249.95~~	$219.95	$195.95
208645CF	Auto Iris lens	69.95	62.95

4-Channel 2.4GHz Wireless Audio/Video Transmitter System

CCIR NTSC, PAL, EIA Format



- ISM band: 2.4–2.483GHz
- Four selectable channel transmitter and receiver
- Audio response: 20Hz–20kHz
- Antenna mode: dipole (omnidirectional)
- Video output: 1V p-p/75Ω composite video
- RCA jacks for audio/video connectors
- Weight: 3.3 lbs.

Includes: Two 12VDC @ 500mA w/ 2.1mm x 5.5mm center positive plug, and patch cables

Transmitter: Size: 3.5"L x 2.5"W x 1.1"H

Receiver: Size: 5.1"L x 4.0"W x 1.0"H

Part No.	Description	1	10
169631CF	4-ch. wireless system	$149.95	$134.95

Mounting Brackets for Enclosed Camera



- Material: plastic
- Base mounted w/ 3 screws
- Swivel angle: 360˚
- Tilt angle: 90˚
- For use w/ enclosed cameras (P/Ns 150404CF and 169404CF, pg 208)

171002CF: • Color: ivory • Max load: 11 lbs.
170982CF: • Color: white • Max load: 6.6 lbs.

Part No.	Mfr. Cross Ref. No.	Ht. (in.)	1	10
171002CF	15-B002L	6.4	$5.49	$4.95
170982CF	15-B004	2.0	8.49	7.65

4-Channel 2.4GHz Wireless Audio/Video Receiver and 10mW Transmitter

Make your camera wireless up to 492 feet!





- Transmission range: 492' (150M outdoors); 164' (50M indoors)
- 4-channel switch selectable on transmitter
- Output power (transmitter): 10mW
- Output impedance: 50Ω typical
- Video input: 1Vp-p composite
- Audio input: 2Vp-p max.
- RCA jacks for audio and video connectors

Receiver:
- Non-volatile memory protects system set-up from power loss
- Video loss detection and freeze channel
- Mute and alarm trigger port • Wt.: 1.8 lbs.
- Size: (transmitter) 4.5"L x 3.2"W x 1.0"H
- Size: (receiver) 6.5"L x 5.5"W x 1.4"H

Includes: RCA cable, 12VDC@500mA adapter, RCA to F connector adapter (receiver unit only)

Part No.	Description	1	10
192858CF	4-channel transmitter	$89.95	$79.95
192866CF	4-channel receiver	124.95	112.95

2.4GHz Wireless Antenna Booster

Extend Video Transmitting Distance



- Output power: 700mW (±10%)
- Input power: 10mW ~ 60mW
- Consumption 350mA
- Impedance output: 50Ω typical (to antenna)
- Frequency: 2400 – 2500
- Size: 2.2"L x 2.0"W x 0.8"H

Includes: 9VDC @ 800mA power supply

179864CF: For use with 2.4GHz cameras, transmitters, and receivers • Gain: 3dB; Unidirectional

Part No.	Description	1	10
215175CF	Antenna booster	$199.95	$179.95
179864CF	2.4GHz SMA RF antenna	15.95	14.35
179872CF	Wireless extension cable	10.99	9.89

Indoor Pan/Tilt Mechanism

Continuous Pan



- Angular travel pan: 355˚
- Angular travel tilt: ±60˚ (up/down)
- Input voltage: 115VAC
- Externally adjustable limited switch
- Maximum load: 11 lbs.
- Pan speed: 6˚/sec. • Tilt speed: 3˚/sec.
- Size: 6.2"W x 5.4"D x 7.5"H • Weight: 4.6 lbs.

Part No.	Description	1	10
179899CF	Pan/tilt mechanism	$199.95	$179.95

Outdoor Metal Camera Enclosures

- Plate glass: 3mm thick • Outdoor use

170931CF: without heater
- Clear window area: 2.5"W x 2.3"H • Max. camera size: 4.0"L x 2.4"W x 2.4"H

170940CF: w/ heater (keeps optics from fogging)
- Clear window area: 3.5"W x 3.1"H • Max. camera size: 6.5"L x 3.2"W x 3.2"H



Part No.	Description	Size (LxWxH)	Weight	1	10
170931CF	Camera housing	16.0" x 4.9" x 4.9"	2.8	$29.95	$26.95
170940CF	Camera housing w/ heater	11.0" x 3.6" x 3.6"	6.8	69.95	62.95

Mount your video camera almost anywhere

As steady as a tripod, the Window Camera Mount lets you anchor that video camera to any glass surface at any height.



Mounts easily to your car window

Mount your video or CCTV camera on any window or other non-porous surface, and capture what you've never been able to before. This heavy-duty metal mounting bracket attaches securely to any glass surface with a strong lever-activated 3.25" neoprene suction cup. Mount your camera onto the tripod-style screw. Adjust to any position, and you're ready to shoot hands-free. It's perfect for temporary surveillance of your business or home. For cameras up to 3 lbs.

Part No.	Description	1	5
222746CF	CCTV camera window mount	$39.95	$34.95

12 Version Camera Mounting Kit

PANAVISE





A unique component system allows you to build one of twelve versions for today's smaller cameras. Quality ball housing provides 120˚ tilt and 360˚ camera rotation. Shafts are ½" dia. Vinyl cover adds a finished and professional look.

- Wall ceiling and T-Bar clip mounting
- Shafts: 2" (50.8mm), 4" (101.6mm) or 6" (152.4mm) long
- Knob & set screw adjustment CCTV mounts

Part No.	Product No.	Description	Price
224354CF	845-246	CCTV mounting kit	$16.95
224389CF	860	Tri-foot base	7.49
224371CF	861	Square base	6.29
224362CF	862W	J-Box plate	8.95

Mini Indoor Pan & Tilt Mechanism

Continuous Pan



Camera not included

- Automatic scanning: 0˚ – 355˚ angular travel; pan clockwise and counter-clockwise
- Manual tilt: 0˚ - 90˚
- Pan speed: 5˚/sec.
- Maximum load: 4.4 lbs.
- Power consumption: 1 Watt
- Size: 2.5"Dia. x 2.4" H
- Warranty: 2 years continuous use
- Weight: 0.4 lbs.

Includes: 24V @ 150mA power supply, wall mount bracket and mounting hardware

Part No.	Description	1	10
215407CF	Mini pan/tilt	$49.95	$44.95

Black & White CCD Camera with 6" Monitor



Camera: EIA Format

- 512(H) x 492(V)
- 1/3" CCD image sensor
- 380 TV line resolution
- 6 IR LED light for view in the dark application
- 15.734kHz horizontal synch. frequency
- 2:1 interlace scanning system
- 1/100,000 second electronic shutter
- 3.6mm lens with F2.0 • S/N ratio: 48dB
- Video output: 1Vp-p, 75Ω
- Audio output: 2Vp-p, 50Ω maximum • 0 lux at 2M
- BNC connector for video & RCA connector for audio
- Power supply: 12-15V @ 130mA • FOV: 92˚
- Size: 2.2"W x 2.8"D x 2.1"H

Includes: Camera bracket

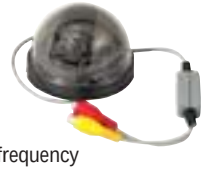
Monitor: EIA Format

- 6" 2-channel flat screen monochrome monitor
- Vertical hold, brightness and contrast adjustment knobs at rear of monitor
- Size: 6.7"W x 7.2"D x 5.2"H • Weight: 7.7 lbs.

Includes: 20M audio/video cable, manual and 15V @ 1A center positive power supply

Part No.	Description	1	10
170616CF	Camera w/ monitor	$159.95	$143.95

Mini Dome Color Camera



NTSC Format

- Perfect for ceilings
- 1/4" CCD image sensor
- 512(H) x 492(V)
- 330 horizontal line res.
- S/N ratio: 46dB
- 15.73kHz horizontal synch. frequency
- Scanning system: 2:1 interlace
- Up to 1/96,000 second electronic shutter
- 3.6mm lens with F2.0
- Video output: 1Vp-p, 75Ω
- Power supply: 12VDC @ 160mA (recommend P/N 162996CF, pg 54)
- 2 lux/F2.0 • FOV: 92˚
- Size: 3.5"Dia. x 2.3"H

Includes: Mounting hardware

Part No.	Description	1	10
171037CF	Mini-dome camera	$139.95	$125.95

Monitor/TV Wall Mount Brackets



- 95˚ swivel
- Assembly required
- Requires unit base to be mounted securely to wall stud
- Wall mount screws not included
- Supports up to 66 lbs. • Weight: 9.0 lbs.

Part No.	Description	1	10
181817CF	12"–18" TV wall mount ~~$32.95~~	$29.95	$27.95

Mini Alarm Siren



- Sound pressure: 108dB
- Output frequency: 3000Hz
- Rated: 2-12VDC @ 300mA
- Adjustable mounting plate
- 16" color coded connector wires, tinned • Size: 2.8"Dia. x 2.5"L

Part No.	Description	1	10	50
148152CF	Alarm siren	$7.95	$6.79	$5.09

Color Camera with Audio Microphone



NTSC Format

- Pick-up device: 1/4" CCD image sensor
- FOV: 92˚
- Picture elements: 512(H) x 492(V) lines
- 330 TV line resolution
- Minimum illumination: 2 lux
- Horizontal sync. frequency: 15.734kHz
- Vertical frequency: 60Hz
- Scanning system: 2:1 interlace
- Video output: 1V p-p, 75Ω
- Audio output: 2V p-p max.
- Lens: 3.8mm/F2.0
- Size: 2.9"L x 2.1"W x 2.0"H • Weight: 0.3 lbs.

Requires: 12V regulated power supply (recommend P/N 162996CF, pg 54)

Part No.	Description	1	10
169404CF	Enclosed camera w/ audio ~~$149.95~~	$119.95	$109.95

Color and B&W Cameras



171248CF

- 1/3" Panasonic CCD image sensor
- Image size: 4.82mm (H) x 3.64mm (V)
- More than 380TV lines horizontal resolution
- 15.734kHz synchronous frequency
- Scanning system: 2:1 interlace
- S/N ratio: more than 46dB • FOV: 42.6˚
- BNC connector for video
- Video output: 1Vp-p; 75Ω
- Size: 4.0"L x 2.2"W x 2.0"H • Weight: 0.9 lbs.

171256CF: B&W • 0.3 lux

- 512(H) x 492(V) EIA signal format
- Auto iris: DC driver / AES / video driver switchable

171248CF: Color • 1.0 lux / F1.4

- 512(H) x 492(V) NTSC signal format
- Auto iris: DC driver / video driver switchable

Requires: 12VDC @ 140mA power supply (recommend P/N 162996CF, pg 54)

208645CF: Auto Iris Lens

- Auto iris direct drive
- FOV: 46˚ • Aperture: ±4F = 1.4 ~ 64

Part No.	Description	1	10
171256CF	B&W CCD camera	$109.95	$99.95
171248CF	Color CCD camera	224.95	201.95
208645CF	Auto Iris lens	69.95	62.95

Night Vision Infrared Lighted Camera



EIA Format

- Adjustable camera lens
- Auto iris controlled
- Built-in voltage regulator
- Horizontal sync. frequency: 15.734kHz
- 6 infrared LEDs for night vision
- Scanning system: 2:1 interlace
- Video output: 1Vp-p; 75Ω
- Audio output: 2Vp-p max.
- 380 TV line resolution
- FOV: 92˚ • 0.1 lux with F2.0 • Lens: 3.6mm
- Matching conn.: RG59 BNC (P/N 71271CF, pg 135)
- Size: 2.9"L x 2.0"W x 2.0"H • Weight: 1.2 lbs.

Includes: 12VDC @ 500mA power supply and wall mounting bracket

Part No.	Description	1	10
150404CF	Infrared lighted camera ~~$134.95~~	$119.95	$109.95

Solar Outdoor Security Light



Dark spots around your business, house or neighborhood are vulnerable to vandalism or burglary. To protect your property, equip it with our new outdoor security lights and motion sensors. All you need are simple tools to mount the unit to the wall. No complicated wiring or electrician needed. The built-in batteries are rechargeable by sunlight, so if the main power goes out you still have security lighting. The solar panel, which has a 12' cord, can be positioned for optimum light exposure.

- Lights up to 60 times on a single charge
- Charges by day, lights by night
- Complete with built-in motion detector, rechargeable battery and bright halogen light
- Easy to install • Weight: 7.1 lbs.

Part No.	Product No.	Description	1	10
219580CF	223	Security light	$79.95	$74.95

Wall Mount Key Lockboxes



223933CF

Quick, easy way to prevent lockouts and easy access to your residence or business establishment. A safe alternative to hiding a key under a mat. This stylish keybox can be attached securely to a wall, in plain view, and can hold up to 5 keys. The easy pushbutton combination lock with protective cover prevents your keys from being stolen and from the harsh elements. Ideal for business for access to secure areas like tool cages, construction sites, and computer rooms.

- Easy to change combination

Part No.	Description	1	5
223933CF	Wall Mount, White	$39.95	$35.95
223941CF	Wall Mount, Clay	39.95	35.95

Auto/SUV/Commercial Vehicle Permanent Lockbox Key





Never get locked out of your automobile again! A better solution for those magnetized-type key storages. With Stor-A-Key keep your spare keys safely locked away. Pays for itself with just a one-time loss of keys or for a locksmith to open your automobile or commercial vehicle. Ideal to store key for commercial use where multiple people use forklifts, trucks, or heavy-duty construction equipment. Keys are easily accessible in this strong, weatherproof casing made of zinc alloy that never rusts or deforms. The case also has an interlocking faceplate that prevents unauthorized entry, spring steel clamp, and a weather tight protective face cover. Pushbutton keys are easy to operate or to reset combinations.

Part No.	Description	1	5
223925CF	Auto Lockbox	$39.95	$35.95

Computer

Never Be Without Light With Our Solar Lantern



The perfect light source for emergency situations. You will never run out of light with this lantern. This rechargeable lantern features a three-way power system: solar power – charge the built-in battery during the day for night time use; 3-D size alkaline batteries; or AC/DC adapter that can also charge the built-in battery. Designed for indoor or outdoor activities with three unique features: solar fluorescent light, solar blinking light and solar searchlight.

- 8-10 hours in full sun for a fully-charged battery
- Up to 3 hours of operation when using flashlight and fluorescent light simultaneously; 10 hours of blinking light; 8 hours of torch light; 4 hours of fluorescent light
- Size: 5.6"W x 2.1"D x 11.5"H • Weight: 1.8 lbs.

Includes: Strap and spare bulbs

Part No.	Description	Price
219598CF	Solar rechargeable lantern	$69.95

Jump Start with 260 PSI Air Compressor

Power & air where and when you need it!



Worried about getting stranded on the road? Not when you pack your self-contained battery starter and air compressor! Just clamp the cables onto your battery terminals and start your car. Pump up a flat with the 260-PSI air compressor and drive to a service station to get it fixed. No phone calls. No waiting. No putting yourself at the mercy of strangers. But that's not all. You also get a built-in worklight and 12VDC car-type outlet that can power TVs, coolers and cellphones for up to 50 hours. Recharge the jump-starter from an AC outlet or your car's cigarette lighter using the AC and DC adapters.

- 12VDC supply with 400A crank/900A peak
- Rechargeable 17A hour sealed lead acid battery
- #4 AWG booster cables
- Cigarette lighter plug output with overload protection for running DC appliances provides up to 50 hours of use
- 3.6W built-in light
- Color coded battery meter and battery test switch
- ABS high-impact body with an oversized carry handle
- Weight: 23 lbs.

Includes: DC-to-DC power cord and 120V adapter

Part No.	Description	Price
223888CF	Jump start w/ air compressor	$49.95

Security Camera and Decoder



The bulb looks like a standard fixture, but it really contains a miniature camera and transmitting encoder in a sturdy, weatherproof enclosure. Simply screw the bulb-camera into any outdoor light socket, plug the mini-receiving decoder into any TV in your office, and you are ready to watch the piece-of-mind channel. Installation truly couldn't be easier. You'll get a clear birds-eye view of your security perimeter without fishing wires through walls, drilling holes, mounting antennas, or changing and checking batteries. While your other outdoor lights illuminate the scene, the SecureView outdoor camera provides the picture. You'll be glad you have it.

- Send video signals up to 2000' via 110VAC lines
- 85° viewing angle, from 6" to optical infinity
- Viewing range up to 100 yards in daylight
- Built-in infrared circuitry will see in total darkness up to a maximum of 30'
- NTSC composite transmitter; NTSC composite and RCA connector receiver
- Transmitter size: standard flood lamp housing
- Receiver size: 2.5"W x 2.0"D x 3.8"H

Part No.	Description	Price
219379CF	Outdoor camera and decoder	$199.99

World Band Portable Solar Radio



This portable solar radio is an essential for emergency preparedness when you need to be updated about what is happening in the news, weather and police beat. With the InfoMate® radio you will never depend on batteries again. The InfoMate® radio can be powered and recharged by AC adapter, cigarette lighter adapter, sunlight or built-in hand generator. Keep one on your office windowsill or plugged in if you happen to live in an area subject to severe weather conditions, earthquakes, floods, fires, etc. You will always have access to the latest emergency information.

- 11 bands: AM (530-1700kHz, AM std.)/FM (88-108MHz), TV1 (Channel 2-6), TV2 (Channel 7-13). Aircraft (112MHz, commercial air), VHF (145-175MHz, taxi/police/business radio), National Weather Band Service, SW1-SW4
- Guide book developed in association with the National Weather Service
- 4 power sources: AC adapter, vehicle adapter, solar power (rechargeable batteries) and dynamo generator
- Low battery LED indicator tell you when your battery charge level is running low
- Weight: 1.0 lb.
- Tuning LED indicator helps locate situations on your scale • Size: 8.6"W x 3.0"D x 5.3"H

Includes: High quality earplugs, 12V car cigarette lighter charging cord, AC/DC wall adapter (UL approved), a pack of 4 Ni-Cad batteries and manual

Part No.	Product No.	Description	Price
219299CF	837-D	World band radio	$69.95

Alc Alert Breathalyzer

Be safe and insure you do not lose your driver's license





No one gets behind the wheel intending to wreck lives. But each year thousands do just that when they misjudge the amount of alcohol in their system. Some get arrested and lose their license, sending their families into turmoil. Some cause accidents with tragic results. But now, you can stop putting yourself and others at risk. Alc Alert lets you quickly and discreetly check your blood alcohol level before you drive. No bigger than a cigarette lighter, this sensitive instrument uses gas sensor digital technology to measure blood alcohol level (BAC) from .0% to .12%, well past the legal limit in all states. A backlit LCD panel and audible alerts guide you through the simple procedure. Just blow as if cooling soup on a spoon. When you hear 3 beeps, stop and read the results.

- Compact design fits easily into your pocket, purse or day planner
- Backlight LCD makes it easy to read in low-light conditions
- Audible alert beeps when unit is ready and after breath sample registers
- "Smart Messages" alerts you with incomplete breath samples & saturation levels
- Operates for over 300 uses on 2 AAA batteries

Includes: Protective pouch and batteries

Part No.	Product No.	Description	Price
222332CF	837-D	AlcAlert	$49.95

Bushnell Night Vision Monocular

Like the infrared goggles worn by the U.S. military, Bushnell Night Vision lets you see them, but they can't see you.



See in the dark without disturbing or alerting others. Night Vision Monocular uses military-grade image intensification technology to let you see clearly for up to 300 feet, even in pitch blackness. It's perfect for campers, hunters, hikers and wildlife enthusiasts… essential for surveillance and search-and-rescue work. Night Vision collects and amplifies the minute amount of light that exists even in what we perceive as total blackness. It converts the light into electrons that strike a phosphor screen, producing a detailed image just the way your TV does. High-speed f1.5 objective lens with 2.4X image magnification. FOV of 79 feet at 100 yards. Weighs 17 oz. with 2 AA batteries (included). Comes with roomy padded carry case with adjustable shoulder strap.

- One-year Manufacturer's Warranty

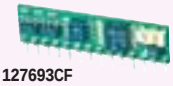
Part No.	Description	Price
219694CF	Night Vision Monocular	$199.00

Order Anytime 24x7x365

Phone 1-800-831-4242 Fax 1-800-237-6948

Online www.Jameco.com

BASIC Stamps


127693CF


130892CF

BASIC Stamps are small computers using a variation of BASIC called PBASIC to control execution of many applications, such as robotics, radio-controlled interface of a digital camera, industrial pallet stacker, health monitoring systems, and much more.

The BS1-IC has 8 I/O lines, while the BS2-IC has 16 I/O lines which can be connected directly to buttons, LEDs, registers, and many other TTL level devices. Each allows you to store data in the EEPROM before downloading a BASIC program.

See page 92 for Serial LCD Modules

Includes: Embedded BASIC plus instruction sets; basic interpreter, EEPROM (non-volatile), a resonator and 5V regulator

Specifications:	127693CF	130892CF
EEPROM	256 bytes	2048 bytes
RAM	16 bytes	32 bytes
Cur. Draw @ 5V	2mA run/20µA	8mA run/100µA
Microcontroller	PIC16C56	PIC16C57
Program speed	2000/sec.	4000/sec.
# of I/O Pins	8	16 + 2 serial
Package	14-pin SIP	24-pin DIP
Volts Required	5-15VDC	5-15VDC
Size	1.4"L x 0.4"W	1.2"L x 0.6"W

Part No.	Parallax No.	1	10
127693CF	BS1-IC	$49.95 $33.95	$32.29
130892CF	BS2-IC	45.95	41.95

BASIC Stamp® 2 Starter Kit with BS2-IC (27203)




Inset of Carrier Board

Design your own project today using this BASIC Stamp kit. Includes the super carrier board, software, manual and programming cable. BASIC Stamp 2 can be connected directly to buttons, LEDs, registers and many other TTL devices.

- Weight: 1.9 lbs.

Part No.	Parallax No.	Price
140071CF	27203 Kit	$149.95 $139.95

Programming and Customizing The BASIC Stamp Computer



McGraw-Hill A comprehensive tutorial on the easy-to-use BASIC Stamp single board computer and a primer on electronics. Includes software tools to begin developing PIC applications. (334 pages,2001)

- Size: 7.4" x 9.0" • Weight: 1.2 lbs.

Includes: CD-ROM

Part No.	Description	Price
154667CF	BASIC Stamp Book	SALE $27.95

See the yellow and green highlighted items.

Jameco Special Values!

Details are page 3.

50MHz BASIC Stamp 2SX Module



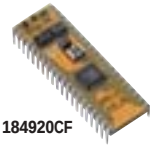
High-speed version of BS2-IC with additional RAM and EEPROM.

- Microcontroller: Ubicom SX28AC
- Program execution speed: 10,000 instructions/sec. • Volts required: 5-12 VDC
- EEPROM program size: 8 x 2k bytes, 4,000 instructions • Scratch pad RAM: 64 bytes
- Current draw @ 5V: 60mA run/200µA sleep
- Number of I/O pins: 16 + 2 serial
- RAM size: 32 bytes • Size: 1.2"L x 0.6"W

Part No.	Parallax No.	1	10
159775CF	BS2SX-IC 24-pin	$58.95	$55.95

BASIC Stamp 2P Modules


184911CF


184920CF

In addition to the BS2-SX (above) features, includes new commands for HD44780 compatible LCDs, Dallas Semiconductor 1-wire and Philips I2C parts.

- Voltage requirements: 5-12VDC
- Program execution speed: 12,000 instructions/sec.
- RAM size: 38 bytes (12 I/O, 26 variable)
- Scratch pad RAM: 128 bytes
- EEPROM program size: 8 x 2k bytes, 4,000 instructions
- Current draw @ 5V: 40mA run; 400µA sleep

184911CF: Size: 1.2"L x 0.6"W x 0.4"H
- Number of I/O pins: 16 + 2 serial

184920CF: Size: 2.0"L x 0.6"W x 0.4"H
- Number of I/O pins: 32 + 2 serial

Part No.	Parallax No.	1	10
184911CF	BS2P24-IC 24-pin	$78.95	$71.95
184920CF	BS2P40-IC 40-pin	98.95	89.95

BS2P Professional Starter Kit



Provides the engineer with all the parts required to get started with the BSP2 microcontroller. The kit includes a selection of components and ready-to-run source code that will help master some of the exciting new features of the BSP2.

Includes: Programming manual, BS2P demo board, BS2P-24 microcontroller, DB9 (serial) programming cable, PCF8583 chip, 32.678kHz crystal, 24LC32 serial EERPOM, DS1822 thermometer, (3) 4.7K resistor, jumper wires.

Part No.	Parallax No.	Price
202323CF	27235 kit	$194.95
202331CF	BS2P40 adapter	24.95

BASIC Stamp 2 OEM Kit



A through-hole version of the popular BASIC Stamp modules.

- 20-pin SIP, standard 0.1" spacing
- PC board includes labeled component locations with visible traces between parts
- PBASIC interpreter and EEPROM are socketed to allow for replacement
- Programmed using PBASIC DOS or Windows® editor just like the BASIC Stamp modules

Includes: PBASIC interpreter, EEPROM, resonator, DB-9, resistors and transistors

Part No.	Parallax No.	Price
183071CF	27291 BASIC® Stamp 2 kit	$48.95

Stamp Works Kit



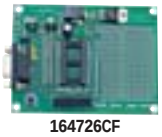
This all-in-one kit takes you beyond theory, into a well-written collection of 32 experiments that will teach you first class BASIC Stamp programming. You'll learn to get the most out of the BASIC Stamp and to increase its versatility by connecting to popular active and passive components.

Includes: Manual, BASIC Stamp Experiment Board, BS2-IC, 2x16 parallel LCD with custom cable, digital multimeter with 2 probes, wire cutter/stripper/pliers, three 100' rolls 22 AWG wire, screwdriver kit, photoresistor, 555 timer, 8-bit serial-to-parallel and 8-bit parallel chips, Dallas Semiconductor 1620 digital thermometer and real-time clock with 32.768MHz crystal, National Semiconductor ADC0831 8-bit A/D converter, Maxim 7219 8-digit LED display driver, National Semiconductor LM358 op-amp, stepper motor, servo, power supply, resistor assortment, capacitors, serial cable, CD-ROM and plastic box for parts

- Weight: 4.0 lbs.

Part No.	Parallax No.	Price
184946CF	27297	$348.95

BASIC Stamp Prototyping Boards


164726CF

Optional boards for BS1-IC, BS2-IC and BS2SX-IC Stamps.

- Easy use of Stamp with prototyping area, 9-volt battery clips, I/O header,reset button, and programming connector

130921CF: Use w/ P/N 130892CF, far left
- Size: 3.0"L x 2.6"W

164726CF: Use w/ P/Ns 127693CF &130892CF, far left and P/N 159775CF, above
- Size: 4.0"L x 3.0"W

Part No.	Parallax No.	1	10
130921CF	27120	$27.95	$24.95
164726CF	27130	48.95	46.55

In-System Programming Kit



This unique development tool programs Scenix SX chips in-system and performs in-circuit source-level debugging. Supports every ScenixSemiconductor chip that is commercially available.

- Includes SX Key software, SX Tech Board, 2 SX 28AC/DP 50 MIPS chips, 1 Murata 50MHz resonator, printed manual, CD ROM, power supply and serial cable
- DB-9 serial connector connects to RS-232 port using serial cable
- 4-pin connector on other side of tool plugs into the SX's Vss, Vdd, OSC1 and OSC2 pins
- Windows® 95/98/NT compatible • Size: 0.5" x 1.7"

See Page 71 for Microcontroller Chips

Part No.	Parallax No.	Price
176583CF	45180	$174.95

50MIPS SX Microcontroller

Part No.	Parallax No.	1	10
162931CF	SX28AC/DP (28-pin DIP pkg)	$5.49	$5.25

Quickwriter MCU Programmer

- Programs 4 devices as quickly as a single device when using a gang adapter
- Supports In-Circuit programming with the included cable
- Auto incrementing serial numbers in code or data locations
- Supports existing programming adapters
- Reports individual failures when programming multiple devices
- Enable/disable each programmable area of the MCU
- Select manual programming tasks or "Auto Run"
- Supports 12C5XX, 12C6XX, 12CE5XX, 12CE6XX, 14000, 16C5X/XX, 16C6X/XX, 16C7X/XX, 16C9XX, 16CE6XX, 16FXXX, and 18FXXX series
- Documentation on CD-ROM
- Weight: 1.6 lbs.



209040CF



SALE

133911CF

Requires: IBM PC or compatible, serial port and Windows® operating system

Includes: Quickwriter programming module, DB9 M-F cable, 12VAC @ 1A adapter, documentation and software on CD-ROM

Part No.	Description	Price
209040CF	Quickwriter programmer	$198.95
209314CF	18/28 pin ZIF adapter	68.95
133911CF	40 pin ZIF adapter	~~$59.95~~ 48.49
209293CF	4-gang 18-pin ZIF adapter	172.95
209306CF	4-gang 28/40-pin ZIF adapter	172.95

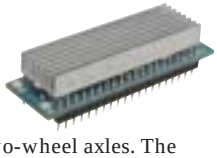
Motor Mind B Module



Motor control supports one or two line serial communication stream. DC motors with operating voltages as great as 30VDC and continuous currents of 2A can be controlled. An on board frequency counter has a range of 0–65,528Hz. Motor speed (254 steps) and direction can be controlled. Motors with tachometers or encoders may make use of the automated speed control function.

Part No.	Description	Price
143802CF	9-pin motor mind B module	$28.95

Motor Mind C Single or Dual DC Motor Controller



The Motor Mind C has been designed to function as a versatile DC motor control system. The module is ideal for use in small robotics projects for controlling two-wheel axles. The motor connections may also be tied in parallel to control a single larger motor.

- Control 10-24V brushed DC motors
- Maximum continuous current 4.0A
- 40-pin DIP socket package
- Single or dual independent motor control options
- Over-current and over-temperature protection
- Serial control of 10-bit PWM signal
- Alternative analog control (0-5VDC) of PWM signal
- Alternative R/C (1-2ms) pulse control of PWM signal

Part No.	Description	Price
215546CF	Motor mind C	$58.95

Parallax's "Stamps In Class" Series Kits

Enabling Students to "Micro-Control" the World

Learn BASIC Stamp programming essentials from the experts. Each kit combines an educational book with the components needed to cover robotics, process control and microcontroller interfacing. The program emphasizes creative PBASIC programming in the classroom. For use with the "Board of Education" below.

More Training Boards on pages 112-115

Robotics





Build a BOE-BOT by adding a chassis, servo motors, power supply and proximity sensor to your Board of Education (right). Experiments cover basic programming and servo control, sensor interfacing using an infrared LED and receiver, light following, and communication between BOE-BOTs.

- Experience: moderate
- 84 piece kit with book

Requires: BS2 starter kit (P/N 140071CF, pg 210)

Part No.	Parallax No.	Price
170131CF	28154	$134.95

"Board of Education"



The BOE was designed in coordination with Parallax's educational customers to teach microcontroller programming and interfacing.

- Mechanically interlocked power supply to prevent dual connection of wall-pack and 9-volt battery
- DB9 connector for BS2-IC programming and serial communication during run-time
- P0 - P15 I/O pins, Vdd and Vss connections brought adjacent to 2" x 1-3/8" breadboard area
- Traces on top of the board show connections between BS2-IC and breadboard connections

Includes: Set of ten 10 color-coded 22 gauge wires

Part No.	Parallax No.	1	10
162536CF	28150	~~$59.95~~ $54.95	$49.95
202331CF	BS2P40 adapter	24.95	24.95

Micro PID Position Controller (UPID)



The Micro PID position controller is a stand-alone motor position controller for use with small DC motors. This device provides 32-bit position control of DC motors with quadrature encoders. Four modes of operation allow for use in a wide variety of applications.

- Up to 2A continuous current, 10A peak
- 6-30VDC brushed motors
- Direct position control via 38.4Kbps, 19.2Kbps, or 9.6Kbps serial interface
- Stores up to 16 trapezoidal profile segments, and 3 PID settings
- Analog position control mode (1024 positions) with offset and multiplier functions
- Velocity control mode
- Built in data-logging modes for trapezoidal or direct control operating modes
- Brake, reset, negative limit switch, and positive limit switch inputs
- Custom software simplifies programming & testing
- X4 or X1 quadrature signal decoding

Part No.	Description	Price
215562CF	UPID position controller	$74.95

ICON H-Bridge DC Motor Controller



The ICON H-Bridge provides easy connectivity to a wide range of medium power DC motors. An on-board microcontroller monitors current and temperature to provide protection if either trip point is exceeded. Various configuration registers may be monitored and programmed via the serial interface. These registers contain information such as the system load current, board temperature, over current trip point, over temperature trip point, and status information.

- Control up to 40V brushed DC motors
- Maximum continuous current 12A
- 2.5" x 1.9" PCB with 0.156" female sockets
- Allows logic level control of 4 N-channel MOSFETs
- Serial interface to on board H-bridge monitor
- Current measurement and adjustable current fuse settings
- Temperature measurement and adjustable temperature fuse settings
- Programmable, non-volatile fuse settings

Part No.	Description	Price
215538CF	ICON H-bridge	$74.95

BASIC Stamp Data Book



Newnes Publishing Covers both the hardware and software of the Parallax BASIC stamp I and II microprocessor operation and design. The basic stamp is built on PC microcontroller hardware and uses PBASIC as its programming language which makes it simple to use and modify for beginners and professionals. (305 pages, 2000)

- Size: 6.0" x 9.2" • Weight: 0.9 lbs.

SALE

Part No.	Description	Price
143651CF	Basic Stamp Data Book	$31.95

Parallax Books See Page 224

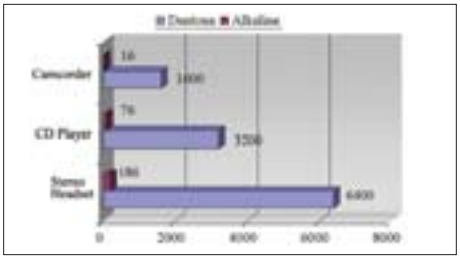




Long-Lasting NiMH Batteries & Chargers

Why buy and throw away hundreds of batteries? Now you can reuse longer-lasting, money saving NiMH rechargeable batteries instead! They feature twice the power of NiCad batteries, so they're ideal for power-hungry devices like digital cameras and camcorders. The chargers below are specifically designed for NiMH batteries.

Lasts 10-30 times longer than Rechargeable Alkaline!



NiMH Batteries

Part No.	Description	1	10	25	100
231095CF	2x AAA, 600mAh	$6.95	$6.25	$5.65	$5.05
231087CF	4x AA, 1600mAh	13.95	12.55	11.29	10.19
231116CF	2x C, 3000mAh	10.49	9.45	8.49	7.65
231124CF	2x D, 7000mAh	19.59	17.65	15.89	14.29
231108CF	1x "9V", 150mAh	8.39	7.95	7.59	7.19

NiMH Chargers

Free Batteries

231141CF: Compact battery charger w/ 4 AA batteries

231132CF: Universal battery charger for AAA, AA, C, D and "9V" cells (batteries not included)


231141CF

- Selector switch for NiCD or NiMH type batteries
- Recharge batteries in single or group
- Automatic charging current selection for different size of batteries
- Built-in IC timer control
- LED lamp to indicate proper charging
- Fast charging in the specified period with automatic switch for trickle charge

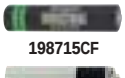

231132CF

Part No.	Description	1	5	10
231141CF	Compact AA charger	$19.95	$17.95	$16.15
231132CF	Universal charger	19.95	17.95	16.15

Eveready® Energizer® Alkaline Batteries

SALE


198707CF


198715CF


198723CF


198731CF



Energizer® and the Energizer Bunny® are registered trademarks of the Eveready Battery Company, Inc.

- Single use Energizer® alkaline batteries for heavy drain and frequent use applications
- **Prepackaged: order in increments of 4**

Part No.	Description	4	8	12
198707CF	AA	~~$.82~~ $.64	$.63	$.62
198715CF	AAA	~~$.82~~ .55	.52	.48
198723CF	C	~~$1.59~~ 1.09	.99	.89

Part No.	Description	1	4
198731CF	"9-volt type"	$2.59	$2.22
215845CF	D	1.95	1.69

Lithium, Silver Oxide, Zinc Chloride and Alkaline Batteries

Applications: personal computers, workstations, test equipment, feature telephones, copiers, fax machines, video scramblers / descramblers and remotes.



Part Number	Mfr. Cross Ref. No.	Description (V/Amp-hours/Dia.)	Battery Type	Terminals/Connection	Pricing 1	10	25	100
151087CF	AA	1.5V/0.7A-h/.545"	Zinc chloride	Barrel pressure fit (standard AA)	$.22	$.21	$.20	$.19
151095CF	GF6F22	9.0V/0.3A-h/1.0"L	Zinc chloride	Standard 9V	1.25	.99	.79	.65
140783CF	357	1.55V/1.60A-h/.454"	Silver oxide	Button cell	1.75	1.49	1.25	1.09
150965CF	840	4.5V/600mA-h	Alkaline	Battery pack w/ connector (Apple®)	9.95	8.99	8.09	7.25
198791CF	MN1604	9.0V/.5A-h	Alkaline	"9-volt"	2.85	2.55	2.29	2.05
198758CF	CR2016	3V/80mAh	Lithium	Coin cell	~~$.89~~ .80	.75	.69	.61
14162CF	CR2032	3V/180mA-h/.787"	Lithium	Coin cell (clock/memory)	1.25	1.00	.75	.53
11789CF	CR2325	3V/165mA-h/.906"	Lithium	Coin cell (clock/memory)	1.49	1.34	1.14	.95
33371CF	TL5101P	3.6V/.85A-h/.579"	Lithium	Barrel w/ leads (clock/memory)	~~$6.95~~ 5.79	5.27	4.45	4.15
126754CF	TL5101S	3.6V/.85A-h/.579"	Lithium	Half AA (Macintosh®)	~~$7.95~~ 6.95	6.29	5.65	5.09
33398CF	TL5104P	3.6V/1.9A-h/.579"	Lithium	Barrel w/ lead (clock/memory)	~~$7.95~~ 5.95	5.49	5.19	4.85
146114CF	TL2100S	3.6V/1.9A-h/.579"	Lithium	Barrel pressure fit (clock/memory)	6.95	6.29	5.65	5.09
33427CF	TL5242W	3.6V/1.9A-h	Lithium	Battery pack w/ plug (PC)	7.49	7.15	6.75	6.25
33443CF	TL5293W	6.0V/1.9A-h	Lithium	Battery pack w/ plug (PC)	9.65	9.07	8.75	7.95

Ni-Cad Batteries

Nickel-Cadmium batteries are rechargeable, sealed cells.

- Can be used for cyclic, trickle or float charge


126720CF 119116CF 101653CF

Part No.	Mfr. Cross Ref. No.*	Description	Voltage	Amps	1	10	25	100
32627CF	S3300	AA	1.2V	650mA-h	$1.95	$1.75	$1.49	$1.25
126720CF	351FT	2-lead (pin)	3.6V	60mA-h	4.49	4.05	3.65	3.29
119116CF	3/V60R	3-lead (pin)	3.6V	60mA-h	3.75	3.39	3.05	2.75
101653CF	NA101-1	2-lead (eyelet)	3.6V	60mA-h	5.49	4.95	3.95	3.25

* Reference number may vary

TEMPEST Lead Acid Batteries

- .187" color-coded terminals (except P/N 159679CF – .470")
- Sealed
- Rechargeable
- UL approved
- Two-year warranty

Tempest is an ISO-9001 Certified Company


155328CF 155336CF 159679CF 218430CF 218376CF

Part Number	Product Number	Nom. Volt.	Amp-Hrs.	Charging Voltage Standby	Cyclic	Cross Reference Panasonic	YUASA	Eagle Picher	Size L" x W" x H"	Wt. (lbs.)	Pricing 1	10
218309CF	TR1.3-6	6	1.3	6.8-6.9	7.25-7.45	LC-R01R3P	NP01.2-6	CF6V1.6	3.8 x 1.0 x 2.0	0.7	$7.89	$7.39
155328CF	TR4-6	6	4	6.75-6.9	7.2-7.5	LCR6VP	NP4-6	CF16V4	2.8 x 1.9 x 4.0	1.8	10.49	9.25
218317CF	TR5-6A	6	5	6.8-6.9	7.25-7.45	LCR6V4PL	NP4-6	CF6V4.5	2.8 x 1.9 x 4.0	2.1	11.45	10.49
218325CF	TR5-6B	6	5	6.8-6.9	7.25-7.45	—	—	—	2.6 x 2.6 x 3.8	2.2	11.45	10.49
218333CF	TR7-6	6	7	6.8-6.9	7.25-7.45	LC-R067R2P	NP7-6	CF6V7	6.0 x 1.3 x 3.8	3.0	12.95	10.29
218341CF	TR8-6A	6	8	6.8-6.9	7.25-7.45	—	—	CF6V8	3.9 x 2.2 x 4.5	3.8	14.95	13.59
175054CF	TR10-6	6	10	6.75-6.9	7.2-7.5	LCR6V10P	NP10-6	CFM6V10	5.9 x 2.0 x 3.8	4.3	14.49	12.95
218350CF	TR12-6A	6	12	6.8-6.9	7.25-7.45	LC-R0612P	NP10-6	CF6V12	5.9 x 2.0 x 3.8	4.6	15.95	12.49
218368CF	TR14-6TH	6	14	6.8-6.9	7.25-7.45	—	—	—	4.3 x 2.8 x 5.5	6.0	25.95	23.49
218376CF	TR0.8-12	12	0.8	13.6-13.8	14.5-14.9	—	NP0.8-12	—	3.8 x 1.0 x 2.4	0.8	15.95	14.49
218384CF	TR1.3-12	12	1.3	13.6-13.8	14.5-14.9	LC-R121R3PU	NP1.2-12	CF12V1.3	3.8 x 1.7 x 2.0	1.3	16.49	14.85
159661CF	TR2.3-12	12	2.3	13.5-13.8	14.4-15	LCR12V2.2P	NP2.3-12	CF12V1.5	7.0 x 1.3 x 2.3	1.9	16.95	15.25
218392CF	TR2.9-12	12	2.9	13.6-13.8	14.5-14.9	—	—	—	3.1 x 2.2 x 3.9	2.5	17.95	16.49
218405CF	TR3.2-12	12	3.2	13.6-13.8	14.5-14.9	LC-R123R4P	NP3.2-12	CF12V3	5.3 x 2.7 x 2.4	3.1	19.95	17.95
155336CF	TR4-12	12	4	13.5-13.8	14.4-15	LCR12V4PF	NP412	CF12V4	3.6 x 2.8 x 4.0	3.4	17.95	16.19
218413CF	TR5-12	12	5	13.6-13.8	14.5-14.9	LC-R125P	NP5-12	—	6.6 x 6.9 x 4.9	21.1	18.49	16.65
155344CF	TR7.5-12	12	7.5	13.5-13.8	14.4-15	LCR12V7.2BP	NP712	CFM12V65	6.0 x 2.6 x 4.0	5.9	18.95	17.15
168188CF	TR12-12	12	12	13.5-13.8	14.4-15	PS12120	—	CFM12V12	5.9 x 3.8 x 3.8	9.0	30.95	26.95
159679CF	TR18-12*	12	18	13.5-13.8	14.4-15	LCR12V17BP	NPG18-12	CF12V18	7.1 x 3.0 x 6.6	13.8	33.95	28.95
218421CF	TR22-12	12	22	13.6-13.8	14.5-14.9	—	—	—	7.2 x 3.0 x 6.6	15.0	39.95	35.95
218430CF	TR26-12	12	26	13.6-13.8	14.5-14.9	—	NP24-12	CFM12V2	6.6 x 6.9 x 4.9	21.1	54.95	48.49
218448CF	TRU1-34	12	34	13.6-13.8	14.5-14.9	—	—	—	7.8 x 5.2 x 6.2	25.6	57.95	52.95
218456CF	TR55-14	12	55	13.6-13.8	14.5-14.9	—	—	—	9.0 x 5.4 x 8.2	39.7	94.95	88.49
218464CF	TR70-12B	12	70	13.6-13.8	14.5-14.9	—	—	—	10.3 x 6.7 x 8.2	55.1	148.95	134.95

***159679CF:** Bolt terminals w/ bolt & nut set

Battery Holders

Eliminate battery retention problems in portable DC power applications and products. High-retention snaps are made from special materials that maintain retention properties longer than conventional snaps. They can be with leads, or attached to battery holders.

Part No.	Product No.	Fig.	No. Of Cells	Connector	Sides	Features	1	10	100	500
216071CF	BH-311-2A	1	1-AA	Wires	Single		$.69	$.59	$.54	$.49
216080CF	BH-321-2A	3	2-AA	Wires	Single		.69	.59	.54	.49
216098CF	BH-321-4A	3	2-AA	Wires	Single	With mounting tabs	.69	.59	.54	.49
216101CF	SBH-321-2A	5	2-AA	Wires	Single	With cover, no switch	.79	.69	.64	.59
216119CF	SBH-321-1AS	5	2-AA	Wires	Single	With cover and switch	.79	.69	.64	.59
216127CF	BH-322-1B	4	2-AA	Snaps	Dual		.69	.59	.54	.49
216135CF	BH-331-A	6	3-AA	Snaps	Single		.89	.79	.74	.69
216143CF	SBH-331-AS	7	3-AA	Wires	Single	With cover and switch	.99	.79	.75	.68
216151CF	BH-341-2A	8	4-AA	Wires	Single		.99	.89	.84	.79
105857CF	✳	12	4-AA	Wires	Single	Wires with connector	.89	.75	.68	.59
216160CF	BH-342-A	9	4-AA	Wires	Dual		.69	.53	.47	.43
216178CF	BH-343-1A	10	4-AA	Wires	Dual		.75	.55	.49	.45
216186CF	SBH-341-1AS	13	4-AA	Wires	Single	With cover and switch	1.09	.89	.85	.75
216194CF	BH-341-2B	8	4-AA	Snaps	Single		.76	.59	.53	.47
216207CF	BH-343-1B	10	4-AA	Snaps	Dual		.99	.89	.84	.79
216215CF	BH-363-A	15	6-AA	Wires	Dual		.95	.79	.69	.65
216223CF	BH-364-A	14	6-AA	Wires	Single		.95	.79	.72	.65
216231CF	BH-363-B	15	6-AA	Snaps	Dual		.99	.75	.69	.65
216240CF	BH-383-A	17	8-AA	Wires	Dual		1.19	.99	.89	.85
216258CF	BH-382-B	16	8-AA	Snaps	Dual		1.19	.99	.89	.85
216266CF	BH-383-B	17	8-AA	Snaps	Dual		1.19	.99	.89	.85
216274CF	BH-411-1A	1	1-AAA	Wires	Single		.69	.59	.54	.49
216282CF	BH-421-1A	3	2-AAA	Wires	Single		.69	.59	.54	.49
216291CF	SBH-421-AS	5	2-AAA	Wires	Single	With cover and switch	.79	.69	.59	.49
216303CF	BH-431-1A	6	3-AAA	Wires	Single		.89	.79	.74	.69
216311CF	SBH-431-1AS	7	3-AAA	Wires	Single	With cover and switch	.79	.69	.59	.49
216320CF	BH-441-1A	8	4-AAA	Wires	Single		.99	.89	.84	.79
216338CF	SBH-441-AS	13	4-AAA	Wires	Single	With cover and switch	1.39	1.15	1.05	.95
216346CF	BH-211-A	1	1-C	Wires	Single		.62	.56	.51	.44
216354CF	BH-221-A	3	2-C	Wires	Single		1.09	.99	.94	.84
216362CF	BH-242-1A	11	4-C	Wires	Single		1.39	1.29	1.09	.99
216371CF	BH-111-1A	1	1-D	Wires	Single		.69	.59	.54	.49
216389CF	BH-121-1A	3	2-D	Wires	Single		.89	.75	.69	.59
216397CF	BH-121-1B	3	2-D	Snaps	Single		.99	.85	.75	.69
216400CF	BH-142-A	11	4-D	Wires	Single		1.19	.95	.85	.75
216418CF	BH-143-1A	8	4-D	Wires	Single		1.15	.89	.81	.74
216426CF	BH-9V-A	2	1-9V	Wires	Single		.79	.69	.64	.59
216434CF	BH-511-1A	1	1-N	Wires	Single		.69	.59	.54	.49
38535CF	2S2032	18	1-CR2032	PC Mount	Coin Cell		.59	.49	.35	.25
38543CF	2S2325	18	1-CR2354 or 2-CR2325	PC Mount	Coin Cell		.99	.89	.69	.49

✳ Battery holder used in many personal computers

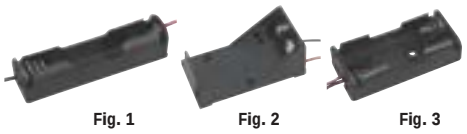
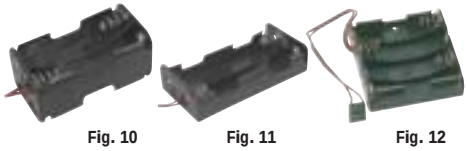

Fig. 1 Fig. 2 Fig. 3


Fig. 4 Fig. 5 Fig. 6


Fig. 7 Fig. 8 Fig. 9


Fig. 10 Fig. 11 Fig. 12

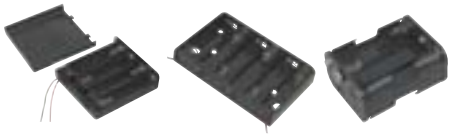

Fig. 13 Fig. 14 Fig. 15


Fig. 16 Fig. 17 Fig. 18

NiMH Battery Charger

Charge your AA or AAA NiMH batteries with this 8-hour battery charger. Simply plug into a wall outlet. Red LED indicates charging and green LED indicates ready to use.

- Charging bay allows 4AA or 4AAA batteries to be charged at the same time
- Output: 4AA 1.35V @ 250mA or 4AAA 1.35V @ 95mA



Part No.	Description	Size (W x D x H)	Wt. (lbs.)	1	10
217533CF	Plug-in charger	2.8" x 2.4" x 4.6"	1.0	$7.95	$6.95

"9-Volt" Battery Snaps and Clip

- Use with standard "9 volt" batteries
- Fully insulated; contacts are nickel-plated brass
- Leads are color-coded, stripped and pre-tinned
- Snap: male outer dia. = 0.225" • Female inner dia.: 0.215"

Fig. 1 

Fig. 2 

Fig. 3 

Fig. 4 

✳ 10 piece minimum

Part Number	Fig.	Description	Dimensions (in.) L	W	H	Pricing 1	10	100	1000
11279CF	1	3", 26 AWG, 6 prong battery snap	1.0	.50	–	$.25	$.22	$.19	$.16
105793CF	2	Battery holder clip	.63	.71	1.2	.28	.23	.16	.14
109153CF	3	6", 26 AWG, 6 prong battery snap	1.0	.50	–	✳	.17	.15	.135
101469CF	3	10", 26 AWG, 6 prong battery snap	1.0	.50	–	.29	.25	.21	.14
216451CF	4	6", 26 AWG, 6 prong battery snap	1.0	.50	–	.34	.30	.20	.18

Long-Lasting NiMH Batteries & Charger

MILLENIUM

Why buy and throw away hundreds of batteries? Now you can reuse longer-lasting, money saving NiMH rechargeable batteries instead! Twice the power of NiCad batteries, they're ideal for power-hungry devices like digital cameras and camcorders. The chargers below are specifically designed for NiMH batteries.

Free Batteries


185308CF

NiMH Batteries

Part No.	Description	1	10	25	100
185279CF	2x AAA, 700mAh	$7.49	$6.75	$6.09	$5.49
197000CF	2x C, 2300mAh	~~$9.95~~ 8.95	8.35	7.75	7.32
196998CF	2x D, 2300mAh	~~$9.95~~ 8.95	8.35	7.75	7.32

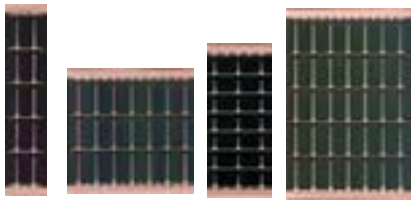
NiMH Charger (4 AA batteries included)

Part No.	Description	1	10	25	100
185308CF	AA charger	$21.95	$19.95	$17.95	$15.95

PowerFilm Flexible Thin Film Solar Modules

Wireless Electronics Series

The wireless electronics series offers a new opportunity to solve the old problem of limited power for wireless electronics in portable and remote applications. These modules are lightweight, paper thin, and durable. With their ultra-film profile, they are easily integrated with devices for solar recharging or direct powering. Specifically developed to recharge AA, AAA, plus 6 and 12 volt batteries.

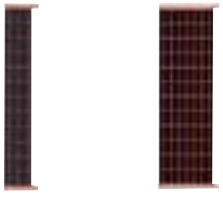


227993CF 228013CF 228030CF 228064CF

Part No.	Product No.	Operating Voltage (V)	Operating Current (mA)	Size (L x W x T) Inches	Size (L x W x T) mm	Pricing 1	Pricing 10	Pricing 100
227985CF	SP3-37	3.0	22	2.5 x 1.5 x .01	64 x 37 x 0.2	$3.89	$3.49	$3.19
227993CF	TX 3-25	3.0	25	4.5 x 1.0 x .01	114 x 25 x 0.2	2.89	2.59	2.29
171061CF	MP3-37	3.0	50	4.5 x 1.5 x .01	114 x 37 x 0.2	5.89	5.29	5.29
228013CF	MPT3.6-75	3.6	50	2.9 x 3.0 x .01	74 x 75 x 0.2	8.89	7.99	7.19
228021CF	MPT3.6-150	3.6	100	2.9 x 5.9 x .01	74 x 150 x 0.2	17.89	15.99	14.39
228030CF	SP4.2-37	4.2	22	3.3 x 1.5 x .01	84 x 37 x 0.2	5.89	5.29	4.79
228048CF	MPT4.8-75	4.8	50	3.7 x 3.0 x .01	97 x 75 x 0.2	11.89	10.69	9.59
228056CF	MPT4.8-150	4.8	100	3.7 x 5.9 x .01	94 x 150 x 0.2	22.89	20.59	18.49
228064CF	MPT6-75	6.0	50	4.5 x 3.0 x .01	114 x 75 x 0.2	13.89	12.49	11.29
228072CF	MPT6-150	6.0	100	4.5 x 5.9 x .01	114 x 150 x 0.2	27.89	24.99	22.49
228081CF	MP7.2-75	7.2	100	10.0 x 3.0 x .02	253 x 75 x 0.6	24.89	22.39	20.19
228099CF	MP7.2-150	7.2	200	10.0 x 5.9 x .02	253 x 150 x 0.6	39.89	37.99	34.99
228101CF	MPT15-75	15.4	50	10.0 x 3.0 x .02	253 x 75 x 0.6	26.89	24.29	21.99
228110CF	MPT15-150	15.4	100	10.0 x 5.9 x .02	253 x 150 x 0.6	44.89	42.99	39.99

Remote Control Aircraft Series

Designed to be easily integrated with Remote Control Aircraft or anywhere weight is critical. These modules are very lightweight and can be soldered to from the back of the module via the extended copper tape, and have an extra edge seal for protection. We offer output currents with and without a strong pressure-sensitive adhesive for simple bonding.



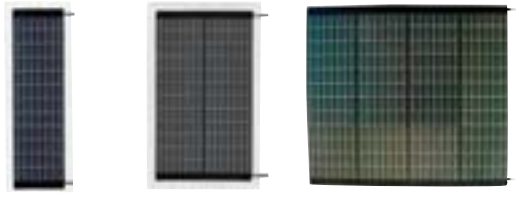
228128CF/228136CF 228144CF/228152CF

Part No.	Product No.	Operating Voltage (V)	Operating Current (mA)	Size (L x W x T) Inches	Size (L x W x T) mm	Pricing 1	Pricing 10	Pricing 100
228128CF	RC7.2-37	7.2	50	10.6 x 2.2 x .01	270 x 55 x 0.2	$16.89	$15.29	$13.79
228136CF	RC7.2-37PSA*	7.2	50	10.6 x 2.2 x .01	270 x 55 x 0.2	19.39	17.49	15.79
228144CF	RC7.2-75	7.2	100	10.6 x 3.5 x .01	270 x 90 x 0.2	29.89	26.99	24.29
228152CF	RC7.2-75PSA*	7.2	100	10.6 x 3.5 x .01	270 x 90 x 0.2	32.89	29.79	26.79

*PSA = Pressure Sensitive Adhesive

WeatherPro Series

The right choice for permanent outdoor applications that are directly exposed to the elements. These modules feature rugged construction, a UV-stabilized surface, extra edge seal for weather protection, and tin-coated copper leads that extend from the module.



228161CF/228187CF 228179CF/228195CF 228208CF

Part No.	Product No.	Operating Voltage (V)	Operating Current (mA)	Size (L x W x T) Inches	Size (L x W x T) mm	Pricing 1	Pricing 10	Pricing 100
228161CF	P7.2-75	7.2	100	10.3 x 3.9 x .04	270 x 100 x 1.1	$39.89	$36.99	$33.99
228179CF	P7.2-150	7.2	200	10.6 x 6.9 x .04	270 x 175 x 1.1	59.89	54.99	49.99
228187CF	PT15-75	15.4	50	10.6 x 3.9 x .04	270 x 100 x 1.1	39.89	36.99	33.99
228195CF	PT15-150	15.4	100	10.6 x 6.9 x .04	270 x 175 x 1.1	59.89	56.99	52.99
228208CF	PT15-300	15.4	200	10.6 x 12.8 x .04	270 x 325 x 1.1	99.89	94.99	89.99

Solar Cell Grab Bag Assortment

About 40 pieces of irregular sizes, shapes, and current ratings at 0.5VDC. Connect in series to increase voltage or connect in parallel to increase current.



Part No.	Description	1	10
215255CF	Solar cell assortment	$9.89	$8.99

Photovoltaic Solar Panel

- Output connection: conductive film requiring pressure contact or use of 3M conductive epoxy
- Rated 9.5VDC open circuit; 9VDC @ 0.06A in direct sunlight
- Size: 6.0"L x 6.0"W x 0.1"Thick



Part No.	Description	1	10
141751CF	0.5W solar panel	$7.95	$7.19

Miniature Glass Solar Panel



- Open circuit voltage: 16.5VDC in full sunlight
- Operating temperature range: -5° to +40°C
- Operating voltage: 12VDC @ 3mA
- Size: 3.6"L x 1.0"W

Part No.	Description	1	10	50
171985CF	Glass solar panel	$7.89	$7.19	$6.39

Flexible Thin-Film Solar Panel

- For recharging NiCad, Nickel Metal Hydride and Gel-cell batteries
- Size: 4.5"L x 1.5"W

PowerFilm



Part No.	Output	1	10
171061CF	3VDC @ 40-50mA	$5.89	$5.29

DC Voltage Monitor Kit

If battery status is important, you need this kit. It uses 7 LEDs to monitor 12VDC in 1V, 0.5V, or 0.25V steps. Monitor 8V or 5V in 0.25V steps. Great for boats, motor homes, model planes or race car Ni-Cads.



- 46-piece kit
- Difficulty level: beginner
- Dimensions: 2.7"L x 1.3"W

Part No.	Mfr. Cross Ref. No.	1	10
181833CF	VM-1	$8.95	$7.95



We'll match the advertised price of any like product.

Jameco's Low-Price Guarantee

It's that simple!

Solar Photon Racer Kit



214738CF

Build your own solar racer and tap into the power of the sun! This easy-to-assemble kit comes with everything you need, including a high-powered 1V, 500ma, ultra lightweight encapsulated solar cell and high-amp / low-voltage motor for maximum torque and speedy acceleration. Sleek transparent plastic body, made from recycled pop bottles, looks great as is, or add your own custom paint job. The Photon can travel 10 feet in three seconds on a smooth, flat surface, when exposed to full sun.

- Difficulty level: beginner
- Size: 8.5"L x 3.8"W x 2.0"H

Part No.	Description	1	10
214738CF	Photon-P (painted)	$29.00	$26.99
215183CF	Photon-1 (non-painted)	24.89	21.79

Amphibious Solar Vehicle



This kit introduces the fundamentals of solar power through hands-on experiments. The sun or any intense mobile light can power the solar battery (included). A multiple function switch (solar 1.4V, 350mA) allows this kit to be energized day or night, indoors or outdoors. Its structured "catamaran" design reduces water resistance, thus reducing the possibility of capsizing. It's street tough, water ready, and solar powered.

- 28-piece kit • Difficulty level: beginner
- Power source: solar battery (1.4V @ 350mA)
- DC motor: 1.9V @ 1.45mA rated
- Size: 9.5"L x 6.5"W x 3.1"H • Weight" 1.0 lb.

Part No.	Product No.	Price
215853CF	OWI-688	$34.95

Forever Keychain Light

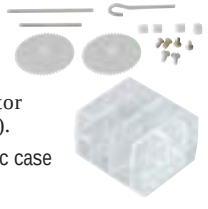


Miniature rechargeable light lasts for years and you'll never need to change a battery or bulb. Energized by solar cells, it is entirely self-contained. A squeeze turns on the LED emitting yellow light. Perfect for keychain or gift.

- Size: 2"Dia. x 0.5"Thick

Part No.	Description	1	10
215212CF	Forever keychain light	$19.89	$17.99

Clear Case with Gears



Motor case & gears
Build a 2-speed motor with the parts in this kit.
Works with our solar motor (P / N 215263CF, see right).

Includes: Clear SM-15 plastic case

Part No.	Description	1	10
215280CF	Motor case with gears	$6.89	$6.29

Mini-Panel Solar Cells

Ready to Use! No Soldering.



200221CF

Encapsulated mini-panels utilize solar cells similar to those that power our satellites in space, yet they are safe and simple to use. Mini-panels allow for handling without the normal breakage and cell damage associated with fragile solar cells. 6" red / black lead wires attached. Modules may be connected to create different outputs.

- Size: 3.8"L x 2.5"W • Connection: lead

Part No.	Prod. No.	VDC @ mA	Size (LxW)	~~$10.75~~ 1	10
200205CF	SOL2	0.5 @ 800	2.6" x 3.7"	$7.95	$7.15
200221CF	SOL4	2.0 @ 200	3.0" x 3.7"	8.99	7.99
215301CF	4-1.5-200	1.5 @ 200	3.8" x 2.5"	12.79	11.59
215319CF	4-3.0-100	3.0 @ 100	3.8" x 2.5"	14.29	12.89
215327CF	4-6.0-50	6.0 @ 50	3.8" x 2.5"	15.79	14.39

Solar Energy Project Kit

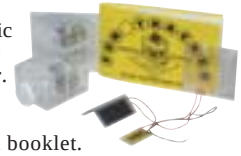


Learn about the renewable energy available with solar power. Experimenter kit demonstrates the power of the solar cell to run an electric motor. Contains motor connected to solar cell, propeller, optical illusion spirals, and informative booklet.

- Difficulty level: beginner

Part No.	Description	1	10
215204CF	Solar energy project kit	$11.89	$10.79

Photovoltaic Sun Tracker Solar Kit



This kit gives students and hobbyists a realistic taste of practical applications for solar power. Contains motor, gear train, solar cell, tracker device, and instruction booklet. Booklet explains how to make sundials and three other unusual solar projects.

Part No.	Description	1	10
215191CF	Sun tracker solar kit	$29.89	$26.99

Motor and Gear Case



Combination motor and gear train in plastic case.

- Operates on 0.5-3.0V @ 0.5V
- Runs at 20mA
- Strong torque @3V: 41 g-cm
- 6 RPM
- Shaft diameter: 2mm
- Size 3.0"L x 2.0"W x 1.5"D

Part No.	Description	1	10
215271CF	Motor and gear case	$17.39	$15.75

Solar Motor



- Operates on 0.5-3.0V @ 200mA start-up
- Runs at 80mA no load
- Low stall torque: 25-48 g-cm
- High RPM: 2500-5000 @ maximum efficiency
- Shaft diameter: 2mm
- Motor size: 1.0"Dia. x 1.5"L

Part No.	Description	1	10
215263CF	Solar motor	$2.89	$2.69

Eye-Catching Solar Powered Retail Display Device

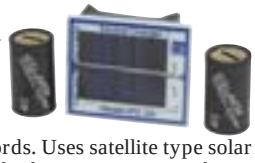


See Jameco.com for Data Sheet.

Add eye-catching motion to your in-store advertising with this solar clip-on motion display. Just clip on to a fluorescent light blub, add your own signage, turn the light on and your in-store advertising signs come to life. Long-life solar motor turns your signs counter clockwise. No batteries or AC power to worry about. No need to worry about tripping your motion sensing alarm systems, justsimply switch off yourfluorescent light and the movement stops.

Part No.	Description	1	10
215221CF	Clip-on motion retail display	$24.89	$22.49

Solar Pocket Charger



Charge your batteries with free solar power. Inexpensive, easy and safe to use—completely self-contained unit, no moving parts or cords. Uses satellite type solar cells that produce the highest power to weight ratio. Compact and lightweight, you can carry this charger with you anywhere. Re-energizes carbon-zinc, alkaline, nickel-cadmium (NiCad), and nickel-metal-hydride (NiMH) batteries.

- Size: 3.6"L x 3.1"W x 1.5"D

Includes: Battery adapter to charge, AA, C, and D type batteries.

Part No.	Description	1	10
215239CF	Solar pocket charger	$32.89	$29.69

Solar Button Cell Battery Charger



A convenient and safe way to revitalize worn down button cell batteries used in hearing aids, cameras, calculators, remote controls, clocks, alarms and more. LED indicator lets you know when the battery is being charged. Charges nickel-cadmium (NiCad), nickel-metal-hydride (NiMH), alkaline, mercury, and most zinc air (1.2V-1.5V) batteries.

- Size: 2.3"L x 1.4"W

Part No.	Description	1	10
215247CF	Solar button cell charger	$16.89	$15.29

Gears and Shafts Kit



Bag of gears, shafts and accessories. Great for science projects. All parts fit 2mm shaft motors.

Part No.	Description	1	10
215298CF	Gears and shafts kit	$5.89	$5.29

Corporate Customers

Opening an account is easy!!
Call 1-800-831-4242 for details today.

Kits & Books

High-Efficiency Robotic Servo

Excellent power-to-weight ratio for robotic projects.



- Supply voltage: 4.8-6 volts
- Torque: 49 oz.-in. @ 4.8V
- Speed: 16 seconds to 60˚
- Can be operated by P/Ns 153648CF, 151001CF, pg 64 and 157059CF, see right
- Size: 0.8"W x 1.4"D x 1.6"H

Part No.	Description	1	10
157067CF	Robotic servo	$19.95	$17.95

Giant Robotic Ball-Bearing Servo

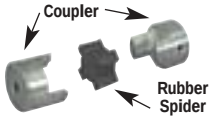
Extremely powerful! Perfect for large robotic projects where power is a must.



- Power supply volt.: 4.8-6 volts
- Torque: 161 oz.-in.
- Speed: 19 seconds to 60˚
- Can be operated by P/Ns 153648CF & 151001CF, pg 64 and 157059CF, see above right

Part No.	Description	1	10
166351CF	Giant robotic servo	$49.95	$44.95

Spider Couplers



- Used with motors
- 1 set screw/hub
- Hub OD: 0.625" Dia.
- Hub length: 0.56"
- Parts sold individually

162288CF (Coupler); 162000CF (Spider)

Part No.	Description	1	10	50
162288CF	.125" (3.18 mm) hub	$1.35	$1.25	$1.09
161998CF	.197" (5.00 mm) hub	1.09	.89	.59
162270CF	.250" (6.35 mm) hub	1.35	1.19	1.09
162000CF	Rubber spider	1.29	1.15	1.05

Climax Spider Shaft Couplers



209285CF 106606CF 106622CF 138288CF

209285CF/106606CF:
- 1 set screw per hub
- Hub OD: 0.625"Dia. • Hub length: 0.56"

138288CF:
- 2 set screws (10-32 x 1/8) • Size: 0.75"L x 0.5"D

Part No.	Description	1	10	100
209285CF	.156" shaft hub	$.69	$.52	$.35
106606CF	.250" shaft hub	.75	.65	.49
106622CF	Rubber spider	.75	.68	.61
138288CF	.250" sleeve coupler	4.49	4.05	3.65

Spider Coupler Set



- Used with motors
- 1 set screw per hub
- Hub OD: 0.785"D
- Hub length: 0.743"L
- For 0.25" shaft diameter

Part No.	Description	1	10	100
211166CF	Spider coupler set	$3.25	$2.95	$2.65

Jameco Special Value!

See the yellow & green highlighted items.

Details on page 3.

Radio Control System



- 75MHz band • 1/4 mile range
- 2-channel proportional operation
- HP-2RNB mini AM receiver
- 2 HS-303 standard servos
- Size: 7.5"L x 2.25"W x 2.25"H
- Weight: 1.5 lbs.

Requires: 8 AA batteries

Part No.	Description	1	10
157059CF	Radio control system	$89.95	$79.95

Robot Drive Wheels



- Extremely high traction foam rubber compound
- 2 hubs with mounting hardware
- Size: 2.5"Dia. x 2.0"W

Part No.	Description	1	10
157227CF	Drive wheels (2 pc set)	$27.95	$24.95

Easy Roller Robot Wheel Kit



Designed to simplify mechanical mounting requirements for small robotic projects. This product replaces mechanical mounting systems with a dependable solid structure and provides an easy-to-implement method of engineering a skid-steering drive system.

• No load current: 111mA • No load speed: 200 RPM • Wheel size: 2.0"W x 2.5"Dia.

Part No.	Description	Operating Voltage Range	Torque	Gear Ratio	1	10
215571CF	Roller robot wheel kit	4.5-12VDC	3.6kg.cm	30:1	$52.95	$48.98

26-Pitch Press Fit Gears and Gear Set

SALE

- Works with DC motors with 0.078" shaft diameter (use P/N 162392CF)
- Heavy-duty plastic construction • Diametral pitch: 26
- Bore size: 0.149" • Material: polyethylene resin

162392CF: 0.075" bore

131801CF: 20-piece gear set includes 2 each of the following: T10, T20, T30, T40, T50 and 10 bushings



162093CF 162392CF 131801CF

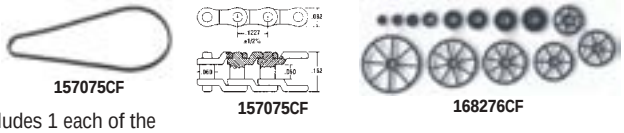
✻ **Prepackaged: please order in increments of 10**

Part No.	Description	Bore	Pitch Dia.	Works w/ Shaft Dia.	Outer Gear Dia.	1	10	100
162069CF	10 teeth gear	0.149"	0.378"	0.156 (5/32)"	0.455"	$.69	$.62	$.59
162077CF	20 teeth gear	0.149"	0.756"	0.156 (5/32)"	0.842"	.59	.50	.39
162085CF	30 teeth gear	0.149"	1.142"	0.156 (5/32)"	1.225"	.49	.42	.36
162093CF	40 teeth gear	0.149"	1.540"	0.156 (5/32)"	1.623"	~~$.99~~ .33	.30	.27
162106CF	50 teeth gear	0.149"	1.900"	0.156 (5/32)"	1.985"	~~$.99~~ .35	.30	.25
162392CF	Bushing	0.075"	—	0.078 (5/64)"	—	✻	.24	.22

Part No.	Description	1	10	50
131801CF	Gear set – 20 pieces (see description above)	$7.99	$7.29	$6.49

16-Pitch Sprocket Set and Chain

- Operates in high humidity and corrosive environments
- Chain links can easily be added or removed to adjust total length
- Chain tension load: 2.0 lbs.



157075CF 157075CF 168276CF

168276CF: 14-piece sprocket set includes 1 each of the following: 8, 9, 10 teeth at ⅛" bore size; 12, 15, 16, 18, 20, 24, 30, 32, 36, 40 and 48 teeth at ¼" bore size

Part No.	Description	1	10	25
157075CF	Drive chain (12" long)	$9.95	$8.95	$7.95
168276CF	Sprocket set - 14 pieces (see description above)	29.49	26.49	23.89

Hub and 48-Pitch Gear Set

- Low coefficient of friction requires little or no lubrication
- Residual stress removed by annealing process

168284CF: 12-piece gear set includes 1 each of the following: 10 teeth at 3/32" bore size; 14 and 16 teeth at ⅛" bore size; 20, 24, 30, 36, 44, 54, 66, 84 and 100 teeth at ¼" bore size



157104CF 168284CF

Part No.	Description	1	10	25
157104CF	1/4" bore aluminum mounting hub w/ set screws	$4.95	$4.49	$3.95
168284CF	Gear set - 12 pieces (see description above)	39.95	34.95	31.95

OWI

Selectable Gear Box Kit



Great 35-piece kit for learning about gear ratios or to add a gear box to your robot project. See-through case has gear ratios from 6.8:1 to 807.93:1.

- Difficulty level: intermediate

Part No.	Description	Dimensions	Price
145509CF	Selectable gear box kit with 3V motor	2.5"L x 1.1"W x 1.5"H	$15.95

OWI® Soccer Jr. Kit ● 242-piece kit

Wire Controlled



New and improved Soccer Jr. kit with the addition of a third motor used to catch and shoot the ball (included). This kit has 6 operational legs, a retrieving and kicking mechanism, and a wired controller to activate movement and ball control. Runs forward, backward, turns left and right, and executes a 360˚ turn.

- Assembled electronic PC board • 6 legs driven by 2 DC motors
- Power usage: approximately 900mA max.

Requires: 4 AA batteries (recommend P/N 198715CF, pg 212)

Part No.	Product No.	Dimensions	Wt. (lbs.)	Price
215861CF	OWI-9820	6.7"L x 3.4"W x 5.5"H	2.0	$44.95

OWI® Soccer PRO Kit ● 167-piece kit

Wire Controlled



Soccer PRO kit is the mechanical soccer player's dream kit, for those who thrive speed, excitement, and coordination. Its fast track two wheel motor systems power the unit to create sonic movements and maneuvers, and the third motor catches, carries, and shoots the ball (included).

- Assembled electronic PC board • Power consumption: 900mA max.

Requires: 4 AA batteries (recommend P/N 198715CF, pg 212)

Part No.	Product No.	Dimensions	Wt. (lbs.)	Price
215870CF	OWI-9850	4.7"L x 5.1"W x 3.0"H	2.0	$39.95

OWI® Obstacle Avoidance Robot Kit ▲ 107-piece kit



Six crank motion legged robot utilizes an infrared light sensing system to find obstacles and maneuvers itself aroundthem. This IR detection kit includes an infrared diode, photo diode, IC, 2 DC motors and all hardware.

Part No.	Description	Dimensions	Wt. (lbs.)	Price
140821CF	Spider kit	12.0"L x 7.0"W x 3.5"H	1.2	$59.95

OWI® Line Tracking Robot Kit ▲ 134-piece kit



Watch as this robot follows a black line you specify. Utilizes infrared light to detect the line and control direction. This educational kit utilizes the same line follow principle of many industrial robots.

Part No.	Description	Dimensions	Wt. (lbs.)	Price
140839CF	Line tracker kit	12.0"L x 7.0"W x 3.5"H	1.1	$49.95

OWI® Rockit Robot Kit ▲



Explore the fundamentals of robotics with this informative and entertaining robot kit. An intelligent robot with a touch/sound sensor, if it comes in contact with an object or hears a loud noise, it automatically reverses, then turns left.

- Soldering required of PCB • Size: 4.5"L x 5.0"W x 3.5"H

Requires: 2 AA batteries (recommend P/N 151087CF, pg 212)

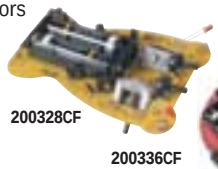
Part No.	Description	Pieces	1	10
199603CF	Rockit robot Expert	96	$21.95	$19.55

velleman Micro Bug Kits ■

A bright colored miniature bug shaped robot that is attracted to light.

- Two open chassis sub-miniature motors
- Adjustable light sensitivity that suits almost any light conditions
- LED "eyes" indicate driving direction
- Stops in total darkness
- Size: 4.0" x 2.4"

Requires: 2 AAA batteries (recommend P/N 185279CF, pg 213)



200328CF



200336CF

Part No.	Product No.	Description	Pieces	1	10
200328CF	MK127	Running	26	$18.95	$16.95
200336CF	MK129	Crawling	29	21.45	19.35

OWI® Robotic Arm Trainer Kit ▲ 109-piece kit

Five Axes of Motion



Teaches basic robotic sensing and locomotion principles while testing your motor skills as you build and control the arm. This unit can be commanded or instructed through its five-switch wired controller with lights to grab, release, lift, lower, rotate wrist, and pivot sideways. Five motors and joints allow flexibility.

- Max. length outwards: 14.2"
- Max. height upwards: 20.1" • Grip opens to 2" wide
- Max. lifting capacity: 4.6 oz. • Shoulder movement @ 120˚
- Elbow moving range @ 135˚ • Weight: 4.5 lbs.
- Wrist rotation clockwise or counter clockwise @ 340˚
- Rotates left to right at the base @ 350˚



159345CF

Requires: 4 D batteries (not included)

Build It Yourself!

Part No.	Description	Price
157366CF	Robotic arm kit (unassembled)	$74.95
159345CF	Robotic controller software (assembled)	84.95

OWI® Robotic Arm PC Interface Kit ▲ 31-piece kit



With a PC and the software provided, you can program this interface kit for the robotic arm to do a sequence of movements at precise steps or repeat the sequence.

SALE

Includes: DB25 male to female cable & software diskette

Part No.	Description	Price
208637CF	PC interface kit	$54.95

velleman Deluxe Christmas Tree Kit ■ 208-piece kit



A deluxe Christmas Tree consisting of 134 LEDs with 18 randomly blinking candles. Perfect for home, office, cars, vans and trucks. A great gift idea for the Yuletide season.

- No need to remove battery when using external power supply
- 134 LEDs (green, yellow, and red)
- Red LED simulates blinking candles
- Size: 3.2"W x 5.6"H

New



Requires: 12VDC @ 500mA power supply (recommend P/N 162996CF, pg 54) or 9V battery (recommend P/N 198791CF, pg 212)

Part No.	Product No.	1	10
236072CF	MK100	$19.99	$17.99

velleman 3D Flashing Christmas Tree Kit ■ 36-piece kit



Amaze your friends and relatives—they won't know this amazing "life-like" representation is actually constructed of epoxy glass, plastics, semiconductors and metals! Plus, you won't have to pay the exorbitant prices of other imitation Christmas trees.

- 16 flashing red LEDs
- Extra green and yellow LEDs to customize your tree
- Low power consumption: 8mA
- Size: 3.1"L x 3.5"W x 4.0"H



Shown with Battery (not included)

Requires: 9V battery (recommend P/N 151095CF, pg 212)

Part No.	Product No.	1	10
211781CF	MK130	$10.95	$9.95

velleman Santa Sleigh and Reindeer Kit ▲ 201-piece kit



Make sure Santa shows up in your house this year! This conversation piece will provide years of Christmas cheer. 126 multi-colored LEDs animate the movement of the reins, sleigh and reindeer legs.

- Board size: 5.7"L x 3.2"W



Requires: 9VDC or 12VDC power supply (recommend 9VDC P/N 198791CF, pg 212 or 12VDC 100853CF, pg 55)

Part No.	Product No.	1	10
211764CF	MK116	$22.95	$20.65

Parking Radar Kit ■ *55-piece kit*



Parking in tight places can be difficult, but this unit can tell you when you have come within an adjustable preset distance of the object behind you.

- Detection range: 5cm – 1.5m; angle: 5˚
- Transmitter frequency: 40kHz
- PCB size: base (4.9"L x 1.9"W) sensor (3.8"L x 1.1"W)

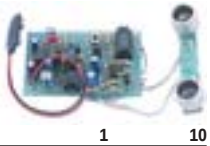
Requires: 10-15VDC @ 16mA max (recommend P/N 100095CF, pg 55) or auto power plug (recommend P/N 115001CF, pg 59)

Part No.	Product No.	Price
129120CF	K3502	~~$44.95~~ $39.95

Ultrasonic Motion Detector Kit ■ *49-piece kit*

Detect motion / movement 13 - 23 ft. away and trigger an alarm w / this kit.

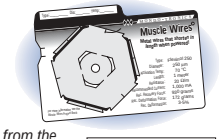
- 2 boards: one with matched pair of ultrasonic transducers to detect motion from 13 to 23 ft. away; 2nd board contains crystal controlled oscillator & all circuits
- Switchable latch, red LED indicator
- Solder pad output to drive external relay or circuits
- Size: main board: 2.8"L x 2.0"W x 0.8"H; transducer board: 2.8"L x 0.6"W x 0.9"H



Requires: 9V battery (recommend P/N 151095CF, pg 212)

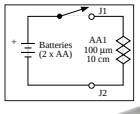
Part No.	Description	1	10
125090CF	Ultrasonic alarm kit	$29.95	$26.95

MONDO•TRONICS Flexinol Muscle Wires®





These unique nickel-titanium alloy Muscle Wires® actually shorten in length when electrically powered, and can lift thousands of times their own weight. • Length: 1 meter



How it works… *Pressing the switch lets power flow from the batteries through the Muscle Wire®, heating it and causing it to contract and raise the lever and lift the weight. When power is removed, the Muscle Wire® cools and relaxes, and the weight helps it return to its starting position.*



141348CF: Muscle Wires® Book & Deluxe Kit

- Kit includes one each Flexinol 100, 150 and 250 Muscle Wires® (below) and Project Book
- 3 meters of wire

Includes: Crimps and instructions

Part No.	Description	Wire Dia. (microns)	Linear Resistance (ohm/m)	Typical Current (mA)	Deform Weight* (grams)	Recovery Weight* (grams)	Typical Rate**	Pricing 1	Pricing 10
141321CF	100LT	100	150	180	28	150	33	$15.95	$14.49
141874CF	150LT	150	50	400	62	330	20	16.95	15.29
160055CF	375LT	375	8	2750	393	2000	4	19.95	17.95

* *Multiply by 0.0098 to get force in Newtons* ** *Cycles per minute, in still air, at 20˚ Centigrade*

Part No.	Description	1	10
141348CF	Muscle Wires® kit	$59.95	$53.95

MONDO•TRONICS Electric Pistons™

Deluxe 5 Pack



The Electric Piston is a shape memory alloy actuator that pulls with up to one pound of force and contracts by 20mm. Typical activation requires one volt at five amps for two seconds. Plus, mount several pistons in parallel for more strength, and in series for longer strokes.



Includes: Five pistons, battery, leads and plans for four complete projects

Part No.	Description	1	10
141903CF	Electric piston pack (1 volt @ 5 amps)	$39.95	$34.95

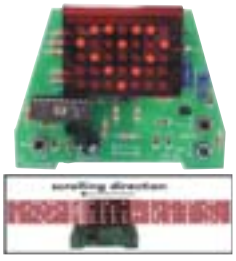
Flex Sensor



- Maximum resistance: 30kΩ to 40kΩ, proportional to the degree of flexing or bending
- Nominal resistance: 10kΩ
- Applications: virtual reality data gloves, robotic, bio-metric, physics and engineering

Part No.	Description	1	10
150551CF	Flex sensor	$12.95	$11.65

Scrolling Message Kit ■ *76-piece kit*



Create your own scrolling message with this 35-LED graphic display kit. Press "SET" to change a particular character, "UP or DOWN arrow" to select the character, and end your scrolling message with the "<" character.

- 35-LED display
- Maximum 16 characters
- Adjustable scrolling speed

Requires: 9 to 12VDC @ 20mA (recommend P/N 100845CF, pg 55)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
200310CF	MK124	3.5"L x 2.6"W x 1.8"H	0.2	$24.95	$22.45

3-Channel Light Organ Kit ■ *80-piece kit*



Add a 3-channel dancing light display to your music. Each channel displays a different range of sound.

- Frequency ranges are adjustable
- Line or microphone input
- Maximum load 2A per channel
- Each output has individual sensitivity control

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
131684CF	K8017	6.7"W x 5.6"D x 1.7"H	1.2	$54.95	$49.95

Stroboscope Kit ▲ *19-piece kit*

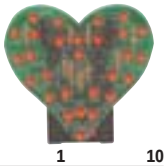


Make your own snapshots and "lightning" light effects. Flash frequency adjustable from 2 - 20Hz.

- Input: 110VAC

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
117639CF	K5300	3.5"L x 2.6"W	0.5	$18.95	$16.95

Flashing LED Sweetheart Kit ■ *46-piece kit*



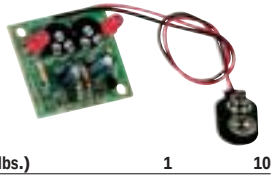
This kit shows a beating heart. Great for decorations!

- Power consumption: 8mA

Requires: 8 to 15VDC wall transformer (P/N 100095CF, pg 55) or 9VDC battery (P/N 151095CF, pg 212)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
147555CF	MK101	2.5"L x 2.4"W x 1.2"H	0.1	$11.95	$10.95

Flashing LED Kit ■ *23-piece kit*



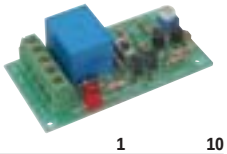
Activates 2 flashing LEDs for applications such as model constructions. Adjustable flashing speed by potentiometers.

- 5.5" wire w/ 9V battery connector
- Minimum consumption: 4mA

Requires: 9VDC battery (P/N 151095CF, pg 212)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
147580CF	MK102	1.3"L x 1.4"W x 0.6"H	0.1	$7.95	$7.19

Light Sensitive Relay Kit ■ *20-piece kit*



Build a stable and advanced circuit that uses light to control a SPDT 10A relay.

- Dimensions: 2.4"L x 1.3"W x 1.0"H

Requires: 12VDC power supply (recommend P/N 100095CF, pg 55)

Part No.	Description	Wt. (lbs.)	1	10
136223CF	Light relay kit	0.1	$12.95	$11.65

30-Day Money-Back Guarantee

If you're not satisfied, we'll take it back!
Details on page 226.

RF Code Lock Transmitter and Receivers ▲

- Use for car alarms, garage doors, door locks, lighting control, etc.
- Over 8000 selectable codes
- Range: 100 ft.
- Use several transmitters with one receiver
- Receivers feature relay output (10A change-over or pulse contact)
- P/N 117647CF use with P/Ns 173235CF & 117655CF

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117655CF

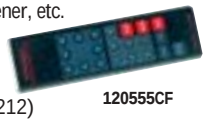
Requires: Transmitter:12V battery type V23G; receivers: 12-16VDC @ 100mA (recommend P/N 100095CF, pg 55)

Part No.	Description	Kit Pieces	Wt. (lbs.)	1	10
117647CF	K6706 2-ch transmitter (RF)	29	0.3	$16.95	$15.25
173235CF	K6727 2-ch receiver (RF)	75	0.5	39.95	35.95
117655CF	K6707A 1-ch receiver (RF)	75	0.5	29.95	26.99

15-Channel Infrared Transmitter & Receiver ■

- Applications: remote on-off switch, alarms, garage door opener, etc.
- 15 independent channels
- Transmitter/receiver range: ±30 meters

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120555CF

120555CF: Transmitter

Requires: 9VDC battery (recommend P/N 151095CF, pg 212)

120547CF: Receiver

- Each output can be a change-over or pulse contact switch
- Output: 50VAC @ 500mA max.
- PCB dimensions: 2.8"L x 5.7"W
- For greater power output use P/N 128910CF, below

120547CF



Requires: 8-14VDC (recommend P/N 100095CF, pg 55 or 129314CF, pg 56)

Part No.	Description	Kit Pieces	Wt. (lbs.)	1	10
120555CF	K6710 15-ch transmitter	37	0.8	$69.95	$62.95
120547CF	K6711 15-ch receiver	76	0.5	49.95	44.95

Computer Control Interface Kit ▲ *301-piece kit*

Connects to printer port without interruption of the printer. Works well in control applications such as the DC dimmer (P/N 128901CF, right) and infrared transit/receiver (P/Ns 120555CF and 120547CF, above).



- 16 I/Os with opto coupler
- Analog outputs: eight 6-bit (64 steps), one 8-bit (256 steps)
- Analog inputs: four 8-bit (256 steps)
- Full opto-isolation with computer
- 3.5" driver disk w/ routines in C++, QBASIC, Turbo Pascal

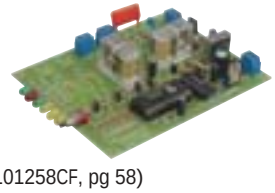
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Requires: DB25 cable (P/N 65787CF, pg 194)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
128928CF	K8000	9.3"L x 5.3"W	1.7	$139.95	$125.95

velleman Remote Control by Telephone ▲ *116-piece kit*

- Possible to turn on or off up to three devices (switching lights on-off; check alarm systems; water heater on-off; garage doors)
- Check conditions of a switch (open or closed)
- Protected by a user-defined code
- Pick up after 3 or 8 rings (selectable)



Requires: 12VAC @ 300mA (recommended P/N 101258CF, pg 58)

Includes: Relay for one output (10A/250VAC)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
120678CF	K6501	4.1"L x 5.1"W	0.7	$69.49	$62.59



Don't worry about backorders.
Over 99% of our products are in stock!

We'll Send It Today!

Just place your order by 6PM EST for same business day shipment.

Infrared Remote-Control Receiver Modules



220628CF



165008CF



176541CF

- Commonly used in TVs, VCRs, audio equipment, car stereos and home computers that receive signals or data via infrared
- Single unit module which incorporates a PIN diode & a receiving preamplifier IC
- Excellent mechanical strength and electrical stability
- 940nm wavelength • Size: 0.6"L x 0.6"W x 0.5"H

Part No.	Description	Voltage Input	1	10
220628CF	38.0kHz, side view	4.5VDC @ 1.4mA	$2.99	$2.69
165008CF	40.0kHz, top view	5VDC @ 5mA	2.99	2.69
176541CF	56.8kHz, side view	5VDC @ 2mA	1.95	1.79

Infrared Transmitter & Receiver Kit ● *26-piece kit*

Transmit a 40kHz modulated I-R signal to a distance of 6' to 8'. Can be used as a remote switch to turn objects OFF and ON by infrared. The IR receiver will only receive 40kHz modulated infrared light. You can configure the output for normally ON or normally OFF operation. This allows you to use it as a security sensor or as a remote control switch. You can use the receiver to test TV or VCR remote controls.



- Transmitter size: 1.0"L x 0.8"W • Receiver size: 1.4"L x 1.2"W

Requires: 6 to 15VDC battery (recommend P/N 151095CF, pg 212)

Part No.	Mfr. Cross Ref. No.	Description	1	10
177092CF	IR-2	Transmitter/receiver	$24.95	$22.49

IR LED Illuminator Kit ● *41-piece kit*

- Improve low-light camcorder and CCD camera images without visible light
- 36 high powered infrared LEDs
- At 24' the beam is approximately 3.5' across



Requires: 12-15VDC power supply (recommend P/N 114825CF, pg 55)

Part No.	Description	Dimensions	1	10
157964CF	IR illuminator kit	2" Dia.	$16.95	$15.29

velleman DC Controlled Dimmer Kit ▲ *37-piece kit*

This circuit is ideal for replacing an existing dimmer switch; can be used in a control application via P/N 128928CF interface board, left.



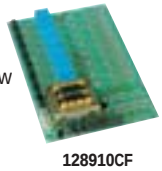
- Supply voltage: 110VAC or 220-240VAC, 50 or 60Hz
- Can be used for 24VAC • DC control voltage: 0-10VDC
- Maximum control current: 2.25mA @ 12V

Part No.	Product No.	Dimensions	1	10
128901CF	K8003	3.0"L x 2.0"W x 1.8"H	$21.95	$19.95

Relay Controller Kit

velleman Universal Relay Card Kit ▲ *64-piece kit*

An electronic controller that switches higher currents while providing insulation between the controller and the controlled devices.



128910CF

- 8 channels expandable to 15 with 8 each P/N 144186CF, below
- Relay output: maximum 5A/220VAC
- TTL or 5V CMOS inputs
- Contact voltage: 12VDC/250mA

Requires: 220 or 125VAC power source

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
128910CF	K6714	8.3"L x 5.9"W	1.8	$59.95	$53.95
144186CF	VR15M121C relay (JZC-22F)		0.028	3.79	3.39

1 Second to 3 Minute Timer Module

By operating a button, the relay will be activated for the selected time.



- Output contact rating: 5A @ 200VAC
- Size: 3.0"L x 1.7"W x 1.2"H

Requires: Power supply 12V @ 50mA (recommend P/N 100095CF, pg 55)

Part No.	Description	1	10
147871CF	I-1 timer	$19.95	$17.95

3 Second On to 1 Minute Off Cyclic Timer Module

By triggering the timer, the contacts will be engaged. Once this time has expired, the relay will remain in the off state for 3-60 seconds. It then restarts, repeating the on and off process until power is disconnected.



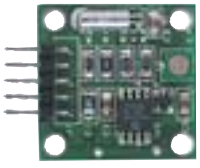
- Output by relay
- Contact rating: 5A @ 200VAC
- Size: 3.0"L x 1.7"W x 1.2"H

Requires: Power supply 12V @ 50mA (recommend P/N 100095CF, pg 55)

Part No.	Description	1	10
147846CF	I-10 timer (was $23.95)	$22.49	$20.29

Pocket Watch B Module

Contains a real time clock, calendar and advanced timing features. Keeps track of seconds, minutes, hours, days, months, and years.



- For use with P/N 130892CF - BS2-IC, pg 210
- Standard TTL • Easy-to-use 1 or 2 wire interface
- Easy-to-use SIP package
- Four types of user configurable alarms
- Leap year compensation
- Externally accessible, precision timebase • One-year warranty

Part No.	Description	1	10
145630CF	Pocket watch B module	$29.95	$28.95

Scrolling Clock Kit ■ *36-piece kit*

Animated rolling time and date display. Select hours, minutes, month or day with the "SELECT" button and enter values with "SET" button.



- 35-LED display • Size: 2.6"L x 3.5"W x 1.8"
- Time display in 12-hour or 24-hour mode
- Power required: 9VDC to 12VDC @ 20mA

Part No.	Product No.	1	10
200301CF	MK123 (was $24.95)	$19.95	$17.95

Power Supply and Motor Kits

1 Amp Power Supply Kit ■ *12-piece kit*

Provides a regulated voltage adjustable between 1.2 and 35 volts at 1 amp. LM317 regulator gives you remarkably better ripple and regulation characteristics than conventional regulators. Chip includes current limiter and thermal overload protection.



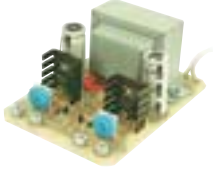
- Output current max.: 1.5A
- Max. dissipation: 15W (cooled)
- Max. input voltage: 40V

Requires: 25.2VCT @ 2A quick connect power transformer (recommend P/N 102103CF or equivalent, pg 46)

Part No.	Product No.	Dimensions	1	10
117621CF	K1823	2.1"L x 2.1"W	$12.95	$11.65

Dual Adj. Regulated Power Supply Kit ■ *48-piece kit*

Build a dual adjustable power supply for your circuits. Outputs positive-negative voltages from ±5 to ±15VDC.



- Adjustable positive and negative supplies ±5 to ±15VDC, 175mA – 750mA per supply
- 120VAC input • LED on indicator
- PC board construction

Includes: Components and hardware

Part No.	Mfr. Cross Ref. No.	Dimensions	Wt. (lbs.)	1	10
20626CF	JE215	5.1"L x 3.5"W x 2.0"H	2.1	$22.95	$20.49

DC to Pulse Width Modulator Kit ▲ *40-piece kit*

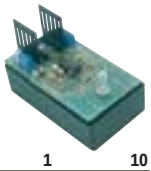
The circuit converts a DC voltage into a series of pulses, such that the pulse duration is directly proportional to the value of the DC voltage.



- PWM range: 0 to 100%
- PWM frequency: 100Hz to 5kHz (adjustable)
- Operating voltage: 8 to 35VDC
- Min. consumption: 35mA • Max. output current: 6.5A
- Efficiency: better than 90% at full load
- Adjustable sensitivity: 2.5 to 35VDC

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
120539CF	K8004	3.3"L x 1.9"W x 1.8"H	0.5	$22.95	$20.49

DC Motor Speed Control Kit ■ *35-piece kit*



- This kit uses Pulse Width Modulation to vary the speed of a DC motor and maintain torque
- For motors up to 100VDC/5A max.

Requires: 5-16VDC supply (recommend P/N 114825CF, pg 55)

Part No.	Description	Dimensions	1	10
127829CF	Motor control kit	3.6"L x 2.3"W x 1.2"H	$19.95	$17.95

Unipolar Stepper Motor Driver Kit ■ *29-piece kit*



- Will drive unipolar stepper motors rated up to 6-30VDC @ 1.25A
- Drives 5, 6 or 8 lead unipolar stepper motors
- Onboard 5VDC regulator

Part No.	Description	Dimensions	1	10
139109CF	Stepper motor	2.6"L x 1.9"W x 1.0"H	$29.95	$26.95

DC Voltage Monitor Kit ● *46-piece kit*

If battery status is important, you need this kit. It uses 7 LEDs to monitor 12VDC in 1V, 0.5V, or 0.25V steps. Monitor 8V or 5V in 0.25V steps. Great for boats, motor homes, model planes or race car Ni-Cads.

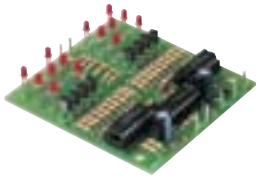


Part No.	Mfr. Cross Ref. No.	Dimensions	1	10
181833CF	VM-1	2.7"L x 1.3"W	$8.95	$7.95

Electronic Dice Kit

Dual Electronic Dice Kit

Board games provide an excellent source of entertainment. Update your game. Play with these electronic dice. Great for education of probability theory. Displays are switched off automatically after 30 seconds to save battery power.



- Two fully independent dice, at your choice you can play with one or two dice.
- 85-piece kit • Experience level: Intermediate

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
200352CF	K3400	3.0"L x 2.8"W	0.5	$18.95	$16.95

Jameco's Low-Price Guarantee

We'll match the advertised price of any like product. It's that simple!

Crossbow Accelerometers and Interface

141591CF 1-Axis and 141575CF 3-Axis Accelerometers
- Dynamic range and excellent frequency response
- Acceleration range: ±4g
- Shielded cable: 2'L pigtail
- Size: 1.9"L x 1.0"W x 0.8"H


141591CF

Requires: 5VDC power supply (not included – recommend P/N 164101CF, pg 54)

141583CF: Digital Accelerometer Interface
- Measures acceleration, impact, tilt, vibration, etc.
- Simple digital interface for 1-axis and 3-axis
- Plugs into any RS-232 port @ 38.4k baud
- 200Hz max. sampling rate
- Size: 3.0"L x 2.5"W x 1.3"H


141583CF

Requires: DB9 male to female cable (recommend P/N 25700CF, pg 194)

Includes: User friendly graphical software and 9VDC @ 500mA power supply

Part No.	Description	Axis	Current	1	10
141591CF	CXL04LP1	One	8mA	$149.95	$134.89
141575CF	CXL04LP3	Three	24mA	319.95	299.95
141583CF	Digital interface card			312.95	299.95

Accelerometer Evaluation Boards

Dual Axis

Crossbow

Evaluation board for the ADXL202, dual axis, 2g accelerometer.


177308CF

177308CF: features RS-232 interface to connect to PC serial ports. Also includes software to display real time acceleration data.

Part No.	Product No.	Description	1	10
177287CF	ADXL202EB	Dual axis	$59.95	$53.95
177308CF	ADXL202EB-232	w/ RS-232	159.95	144.95

Precision Navigation, Inc. Vector 2X Compass Module

- 2° accuracy, 1° resolution
- 5Hz sampling rate
- 3-wire serial output format (compatible with Motorola SPI and National Microwire)
- Hard iron calibration
- Pin selectable BCD or binary output format
- Raw uncalibrated magnetometer output optional
- Master or slave capability for data clock generation



Requires: Power supply 5V @ 10mA (recommend P/N 112070, pg 54)

Part No.	Description	1	10
126703CF	Vector 2X module	$49.95	$44.95

Senix Distance Sensor Modules

Sends out a sound wave 20 times per second and calculates the distance based on the time differential between send and receive signals. The distance is represented by an output voltage from 0 to 10VDC (P/N 134105CF) or RS-232 signal (P/N 151482CF).


134105CF

- Sensing range: 4" to 60"
- Sensor diameter: 1.8"
- Board size: 2.8"L x 1.8"W x 0.9"H
- One-year warranty

Requires: 15 to 24VDC @ 40mA (not included), recommend P/N 114825CF, pg 55

134105CF: • Output voltage: 0-10VDC
- Each 1VDC increment = 5.6" (e.g.: 1VDC output = 9.6")

151482CF: • RS-232 output


151482CF

Includes: Disk and computer cable

Part No.	Description	Wt. (lbs.)	1	10
134105CF	Sensor – voltage output	0.2	$159.95	$143.95
151482CF	Sensor – RS-232 output	1.0	179.95	161.95

Velleman Electronic Thermostat Kit ■ *29-piece kit*

General low-cost thermostat with NTC temperature sensor. Output relay with LED indicator



- Temperature range: 5°C to 30°C (41°F to 86°F)
- Relay power rating: 24VDC/VAC 3A
- Size: 2.1"L x 2.4"W x 1.1"H

Requires: 12VDC @ 100mA (recommend P/N 100095CF, pg 55)

Part No.	Description	1	10
211799CF	Electronic thermostat kit ~~$10.95~~	$9.95	$8.95

Velleman Metal Detector ■ *22-piece kit*



- Proximity range adjustable to 8cm
- LED indicator; can use a buzzer as an option (P/N 105822CF, pg 118) • Dimensions: 2.1"L x 2.1"W

Requires: 9V battery (recommend P/N 151095CF, pg 212)

Part No.	Product No.	Description	1	10
129091CF	K7102	Metal detector	$11.95	$10.95

Function Generator Kit ■ *21-piece kit*

Sine, Triangle and Square Wave



Great for prototyping electronic circuits, whether analog or digital! Produces sinusoidal, triangular, and square waveforms at frequencies continuously variable from 1Hz to 100kHz.

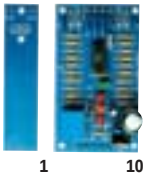
- 21-piece kit (chip, components, PC board, hardware)

Requires: 12VDC supply or ±6VDC split supply (recommend P/N 20626CF, pg 220)

Part No.	Mfr. Cross Ref. No.	Dimensions	1	10
20685CF	JE2206	4.1"L x 1.5"W	$24.95	$22.95

Velleman Liquid Level Controller Kit ▲ *73-piece kit*

Controls the level of any container of liquid. Can replace the liquid sensors with temperature or light sensors for corresponding use.



- Alarm signal provided for desired applications

Requires: 12-14VAC @ 300mA minimum power supply (P/N 10081CF, pg 58)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
129154CF	K2639	4.1"L x 2.4"W x 1.0"H	0.5	~~$24.95~~ $22.95	$20.65

Velleman Water Leak Alarm Kit ● *7-piece kit*

Alarms you of water overflows and leaks!



- Water sensor can be placed at a distance by cutting the board and using wires for connection
- Incorporated loud alarm buzzer

Requires: 9VDC battery (P/N 151095CF, pg 212)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
157315CF	MK108	2.8"L x 1.8"W	0.1	$10.95	$9.95

Need to power any application; visit Jameco's battery section on pages 212-213.



And on your way, don't forget to take a look at Jameco's expanded section of wall transformers on pages 54-58.



Kits & Books

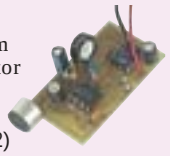
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Super Snooper Big Ear Audio Amplifier Kit

17-piece kit



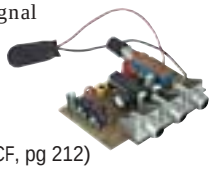
Listen through walls, hear conversations across the room or listen to sounds a block away. Add a parabolic reflector or mount the microphone in a tube, to isolate unwanted noise and make a directional microphone.

- Operating voltage: 9VDC (recommend P/N 151095CF, pg 212)

Includes: Instructions, outputs for speakers or headsets and schematic

Part No.	Description	Dimensions	1	10
151204CF	Audio amplifier kit	1.8"L x 1.0"W x 0.6"H	$10.95	$9.95

FM Stereo Transmitter Mini Kit *37-piece kit*

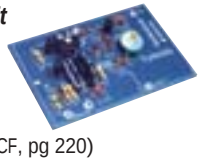


Run your own FM radio station! Plug any stereo signal into this unit and it will be transmitted to any FM radio. Tuneable from 76–108MHz. Plug in a CD player or tape deck and you have a wireless link to an FM radio within 200 feet. Clarity is approximately 40dB stereo separation.

Requires: 9VDC power supply (recommend P/N 151095CF, pg 212)

Part No.	Description	Dimensions	1	10
151239CF	FMST-100 stereo kit	2.7"L x 2.0"W	$29.95	$26.95

Velleman FM Transmitter *26-piece kit*



Mini FM transmitter (100-108MHz) ideal for family broadcasts, baby monitors and security. May be received by any portable FM radio or tuner.

- Integrated pre-amplifier (sensitivity 5mV)

Requires: 9-12VDC power supply (recommend P/N 20626CF, pg 220)

Part No.	Product No.	Dimensions	1	10
117604CF	K1771	1.8"L x 2.8"W	$12.49	$11.29

Velleman FM Radio Kit *65-piece kit*



Easy to assemble – no coils to wind. Receives the complete FM band of 88 – 108MHz.

- With on/off switch, volume control, and LED indicator
- Single adjustment

Requires: 12VDC @ 100mA power supply (recommend P/N 100095CF, pg 55)

Part No.	Product No.	Dimensions	1	10
211772CF	MK118	4.8"L x 3.3"W	$21.95	$19.95

One-Chip AM Radio Kit *39-piece kit*

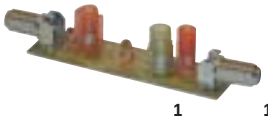


- Uses an IC that performs as an RF amp, detector and AGC in an AM radio

Requires: 9V battery (recommend P/N 151095CF, pg 212)

Part No.	Description	Dimensions	1	10
125161CF	AM radio kit	4.0"L x 1.3"W x 0.5"H	$13.95	$12.95

TV Notch Filters Mini Kit *33-piece kit*



Eliminates unwanted TV channels or interference that alters sound and video. Works on cable channels 2 to 22 and 97 to 99.

Part No.	Description	Dimensions	1	10
151167CF	DF-222 TV filter kit	3.2"L x 0.9"W	$15.95	$14.49

Velleman 10 LED Mono VU Meter Kit *36-piece kit*



- Instant visualization of audio signal levels
- Easy hook up to a LINE level (LOW input) signal source
- Special input (HIGH input) is provided, which allows direct connection to a speaker output
- Frequency range: 20Hz to 30kHz
- Dot or bar display mode selectable

Requires: 15VDC @ 300mA max. power supply (P/N 189982CF, pg 56)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
147643CF	K4304	2.7"L x 1.4"H	0.3	$21.95	$19.75

Velleman Universal Mono Pre-Amplifier *17-piece kit*



For audio applications with insufficient input signal.

- Output impedance: 1kΩ • Max. input signal: 40mV
- Frequency range: 20Hz - 20kHz +/-3dB
- Adjustable output level: 40dB max.

Requires: 10/30VDC @ 10mA power supply (recommend P/N 20626CF, pg 220)

Part No.	Product No.	Dimensions	1	10
117612CF	K1803	1.2"L x 1.8"W	$8.95	$7.95

1-Watt Amplifier Kit *9-piece kit*



Amplifies audio signals for an 8Ω speaker. Use on P/N 125111CF and P/N 147838CF.

- Ideal part for larger projects & battery powered circuits
- Circuit designed around a single TDA7052 IC
- Battery and battery snap not included (recommend P/N 151095CF, pg 212 and 109153CF, pg 213)
- Drives 8Ω speaker (not included)

Part No.	Description	Dimensions	1	10
125111CF	1 watt amp kit	1.2"L x 1.2"W x 0.9"H	$6.29	$5.59

Super Mini 2.5W Audio Power Amplifier *27-piece kit*



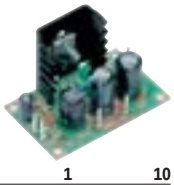
This circuit has incredibly tiny dimensions. The IC has a pre-amplifier and power amplifier, which can be used separately by cutting a jumper.

- Operating frequency: 60Hz to 15kHz
- Max. output power: 2.5W (4Ω, 12V)
- Short circuit/thermal overload protection

Requires: 4.5-15VDC @ 400mA power supply (recommend P/N 114825CF, pg 55)

Part No.	Product No.	Dimensions	1	10
127175CF	K2637	1.7"L x 1.3"W x 1.1"H	$10.95	$9.95

Velleman 7-Watt Amplifier Kit *22-piece kit*



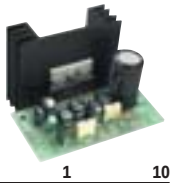
- Music output power: 7W/4Ω
- RMS output: 3.5W/4Ω & 2W/8Ω
- Harmonic distortion: 0.05% (1W/1kHz)
- Frequency response: 20 to 20kHz (-3dB)
- Short circuit/overload protection

Requires: 15VDC (8-18VDC) @ 500mA power supply (recommend P/N 155803CF, pg 56); speakers

Part No.	Product No.	Dimensions	1	10
127255CF	K4001	2.2"L x 1.4"W	$13.95	$12.49

18-Watt Bridged Mono Amplifier Kit

17-piece kit



- Drives 3-8 ohm speakers
- Based on the Hitachi HA13118 amplifier IC

Requires: 12VDC supply (recommend P/N 100095CF, pg 55)

Part No.	Description	1	10
136207CF	18 watt amplifier kit	$15.59	$13.95

CEBEK 20-Watt RMS Amplifier Module



- Input signal: 250mV • Maximum current: 2A
- Output impedance: 4-8Ω (mono)
- Terminals: .100" matching disconnect solderless terminals
- Size: 2.8"L x 2.8"W x 1.6"H

Requires: Power supply: 12V @ 2A (recommend P/N 143714CF, pg 52)

Part No.	Description	1	10
147838CF	E-11 mono amplifier	$24.95	$22.49

Velleman 30-Watt Stereo Power Amplifier

38-piece kit



General purpose stereo amp for audio applications.

- RMS output: dual 15W @ 4Ω or dual 10W @ 8Ω
- Frequency bandwidth: 7Hz to 60kHz (-3dB) • Separation: 70dB
- Supply voltage: 24VCT @ 2A (recommend P/N 101864CF, pg 46)

Part No.	Product No.	Dimensions	1	10
129138CF	K4003	2.8"L x 2.0"W	$29.95	$26.95

Sound Generator & Detection Kits

Sound Generator Kit ■ *61-piece kit*

- Produces 10 different sounds w/ adjustable speed: guns, sirens, car engines, explosions, tunes, screeching tires, phaser guns
- Push-button keyboard

Requires: 8Ω/1 watt speaker (recommend P/N 102031CF, pg 98); 9V battery (recommend P/N 151095CF, pg 212)



Part No.	Product No.	Dimensions	1	10
127562CF	K4401	2.8"L x 2.8"W	$29.95	$26.95

Light Sensitive Electronic Cricket Kit ■ *26-piece kit*

Sounds like a cricket when it gets dark!

- Adjustable cricket effect, tone and light sensitivity
- Minimum consumption: 9V/5mA

Requires: 8-15VDC power supply (P/N 100095CF, pg 55) or 9VDC battery (P/N 151095CF, pg 212)



Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
147547CF	MK104	2.5"L x 1.7"W x 1.6"H	0.1	$14.95	$13.49



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Siren Kit ● *20-piece kit*

- Oscillator is off until you press the switch, then a rising tone is produced until a steady value is reached
- If switch is released, tone starts dropping until it cuts off
- Circuit designed around a dual op amp connected as an oscillator and driver

Requires: 9V battery (recommend P/N 151095CF, pg 212)



Part No.	Description	Dimensions	1	10
125137CF	9V siren	2.0"L x 0.8"W x 0.5"H	$5.95	$5.39

Train Sound Generator Kit ● *11-piece kit*

- Produces 4 train sounds by switch selection
- Components supplied for operation on 3VDC (includes battery holder for 2 AA batteries), but circuit will operate from 2.4-6VDC (recommend P/N 151087CF 2 each, pg 212)



Part No.	Description	Dimensions	1	10
125170CF	4 train noises	1.1"L x 0.6"W x 0.2"H	$9.49	$8.59

Karaoke Kit ■ *59-piece kit*

You can do your "Elvis" impersonation by hooking up this kit between your CD player, MD player, or any other line-level source and your amplifier; and sing along to your favorite Elvis' music. Adjustable microphone level and "vocal reduction" switch reduces original vocals on most stereo surroundings.



- RCA input and output sockets • ON/OFF switch and led power indicator
- 6.3mm microphone jack that fits most microphones
- Low power consumption: 16mA typical

Requires: 9V battery (recommend P/N 198731CF, pg 212)

Part No.	Product No.	Description	Wt. (lbs.)	1	10
215394CF	MK140	3.9"L x 3.3"W x 1.0"H	0.2	$15.95	$14.35

Speech Recording & Recognition Kits

Digital Voice Module

- Selectable 16k/32k/44k bps sampling rate
- 0.5W audio amp on board with volume control
- All components soldered on board
- Plays 16 messages • 1M DRAM on board
- Power requirements: 6-12VDC, 200mA (P/N 100095CF, pg 55)



Part No.	Mfr. Cross Ref. No.	1	10
124871CF	DVM58D	~~$79.95~~ $74.95	$67.49

Voice Activated LEDs Kit ■ *33-piece kit*

Uses sound to activate the flashing of 4 bright red LEDs.

- Power consumption: 0.5mA min./12mA max.
- Adjustable sensitivity

Requires: 8-15VDC power supply (P/N 100095CF, pg 55) or 9VDC battery (P/N 151095CF, pg 212)



Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
147571CF	MK103	2.5"L x 1.6"W x 1.4"H	0.1	$9.95	$8.95

Voice Direct II Stand-Alone Speech Recognition Kit

Bring life to consumer electronics, toys, motors, appliances, lights, and games through the power of VoiceActivation™ from Sensory. Voice Direct™ II is a speaker-dependent speech recognition module, allowing training of up to 15 words; capable of being organized into 1 to 3 command sets. Using sophisticated speech recognition technology, Voice Direct™ II maps spoken commands to system control functions via digital I/O ports. Each time one of the words is recognized, output pins on the module are toggled high for 1 second. With Continuous Listening Technology, it means no button press is required for activation. Up to 3 "gateway" words can be programmed, each allowing access to 5 commands. In addition, Sensory's latest Voice Direct™ II technology builds on the original Voice Direct™ by offering even higher accuracy, faster response times, and improved noise immunity.



Part No.	Product No.	Description	Wt. (lbs.)	1	10
225971CF	66-0101	Speech kit	0.4	$59.95	$53.95

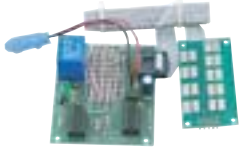
Electronic Locks

Electronic Combination Lock ■ *19-piece kit*

- Programmable 4-digit combination lock with separate 9 touch-pad board
- Output: 240VAC 12A relay controls external loads

Requires: 9V battery (P/N 151095CF, pg 212)

SALE

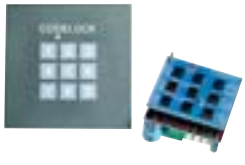


Part No.	Description	Dimensions	1	10
125129CF	Lock kit	3.0"L x 2.5"W x 1.0"H	$10.59	$9.65

Code Lock Kit ■ *67-piece kit*

- Switch an alarm on and off or open door locks
- 3000+ codes possible
- LED indicates state
- Pulse or switch outputs
- Relay contact rating: 5A/220V

Requires: 9-15VDC (P/N 163491CF, pg 55) or 8-12VAC (P/N 100061CF, pg 58) power supply



Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
127554CF	K6400	1.7"L x 1.8"W	0.5	$29.95	$26.95

Easy Microcontrol'n

Beginners Guide (Version 4)



Square 1 Publishing A revision of and the successor to Easy PIC'n that covers Peripheral Interface Controller (PIC) PIC16F84, writing programs, interrupts, timing and counting, and much more. (178 pages, 2002)

• Size: 8.5" x 11.0" • Weight: 1.2 lbs.

Part No.	Description	Price
215061CF	Easy Microcontrol'n	$29.95

Microcontrol'n Apps

PIC Microcontroller Applications (Version 2)



Square 1 Publishing This book is a revision and/or the sucessor to PIC'n Up The Pace. Materials covered in the book include talking to a PIC microcontroller with a PC running a terminal, simple data logger and digital voltmeter experiment, PIC16F87x and 10-bit A/D conversion. (437 pages, 2002)

• Size: 8.5" x 11.0" • Weight: 1.7 lbs.

Part No.	Description	Price
215052CF	Microcontrol'n Apps	$44.95

Time'n and Count'n

Intermediate Level PIC Applications



Square 1 Publishing The material and information presented in this book previously appeared in PIC'n Techniques book. The more current PIC16F870 is substituted for the PIC 16C63. Topics such as test equipment for timing and counting experiments to using timer 1 / timer 2, and capture/compare/PWM as well as programs are included in this book. (218 pages, 2002)

• Size: 8.5" x 11.0" • Weight: 1.4 lbs.

Part No.	Description	Price
210489CF	Time'n and Count'n	$34.95

The Microcontroller Idea Book

The Idea Book introduces low end embedded microcontroller design. It provides practical designs for use with data loggers, controllers and small computer applications. (277 pages, 1997)



SALE

- Circuits, programs and applications featuring the 8052-BASIC single chip computer
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Serial Communications

Serial Communications PIC Applications



Square 1 Publishing Topics such as asynchronous serial communications, RS242 standard, ASCII character code, bit-bang asynchronous communications, synchronous serial communications to name a few are covered in this book as well as tool box modules and applications.(566 pages, 2002)

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210497CF	Serial Communications	$49.95

Programming & Customizing PICmicro Microcontrollers

Second Edition



McGraw-Hill Details the features of the PICmicro® and how to use these embedded chips to access and control many different devices. Shows what happens within the PICmicro® when an instruction is executed and how it interfaces with external devices.(1190 pages, 2001)

• Size: 9.2" x 7.3" • Weight: 4.0 lbs.

Includes: CD-ROM and PIC PCB

Part No.	Description	Price
183046CF	PICmicro Programming	$49.95

PIC Microcontroller Project Book

Comprehensive Beginner's Guide



McGraw-Hill Provides you with hands-on directions for putting Microchip's RISC-based chips with up to 8k of memory to work. Starting with simple projects and experiments, this book leads you gradually into sophisticated programming techniques. Provides you guidance on getting the equipment you need and programming your chip. (203 pages, 2000)

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Part No.	Description	Price
174650CF	PIC Beginner's Guide	$29.95

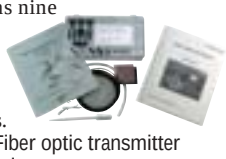
PIC BASIC Programming and Projects



Newnes Publications The BASIC language, as used by the most popular PIC compilers, is introduced from square one, with simple code used to illustrate each of the most commonly used instructions. PIC BASIC is the simplest and quickest way to get up and running – designing and building circuits using a microcontroller. (210 pages, 2001) • Size: 6.1" x 9.2" • Wt.: 0.8 lbs.

Part No.	Description	1	10
200168CF	PIC BASIC Programming	$34.95	$32.95

Lab Course and Lab Kit



Experiment guide contains nine fiber optic experiments. Kit contains all the fiber optic and electronic components needed to complete the experiments.

- Making a light guide • Fiber optic transmitter
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- Characteristics of connectors and splices
- Index-matching procedures • Receiver design
- Speed of opto-electronic devices
- Fiber termination techniques • Weight: 0.7 lbs.

Part No.	Description	1	10
169914CF	Lab course and lab kit	$46.89	$42.29

The Nuts & Volts of BASIC Stamp



This book is useful for newcomers to BASIC Stamps, and seasoned programmers looking for some hardware and software programming tips. With Nuts and Volts easy going style, the BASIC stamp is presented with a series of articles describing PBASIC source code and circuit hints wrapped around a set of real world applications. Over 70 applications featured in this two volume set. (982 pages, 1999)

• Size: 8.5" x 7.5" • Weight: 3.5 lbs.

Includes: CD-ROM

Part No.	Parallax No.	Price
202315CF	28165	~~$49.95~~ $45.95

Programming and Customizing 8051 Microcontrollers



McGraw-Hill Provides you with a complete understanding of the 8051 chip compatibles along with all the information needed to design and debug applications. Covers how to use these embedded chips to access and control many different devices. Includes over 30 experiments, 12 projects and CD-ROM featuring source code and PDF data sheets. (541 pages, 1999)

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Part No.	Description	Price
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Woodglen Press - Volume 1



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SALE

Woodglen Press Volume II

Building on the foundations laid on the first volume, this volume contains schematics with complete part numbers as well as sample "code snippets" that demonstrates how each circuit works. The author has acknowledged Jameco Electronics for providing the components necessary in creating the circuits. (248 pages, 2002) • Size: 5.3" x 8.3" • Wt.: 0.6 lbs.

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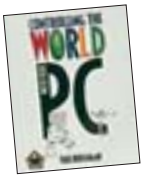
Prompt Publishing CMOS gives you the option to use simple technology and eliminate over-design. This book contains a CD-ROM with datasheets for the CMOS 4000 family and information on how to interface CMOS with SCRs and TRIACS. (390 pages, 2001)

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Includes: 3.5" disk

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Third Edition



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Part No.	Description	Price
174481CF	Electronics Pocket Ref.	$29.95

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213461CF	Robot Builder's Source Book	$19.95

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650nm Line and Dot Laser Diodes

167214CF/143845CF/173243CF:

Class IIIa Laser Product

- Focus adjustable w/ locking set screw
- Wattage: 5mW
- Operating voltage: 3-5V
- Size: 3.3"L x 0.9"Dia.
- One-year warranty



173243CF

143845CF: Line laser module

- Laser line width: 1mm
- Laser fan angle: 60˚

173243CF: Cross hair laser diode module

- Laser fan angle: 60˚
- Female 2.1mm power connector
- Size: 3.0"L x 0.9"D



143837CF: Module regulated power supply

- Output: 5VDC @ 100mA
- Short circuit protection
- Input voltage: 95-125VAC or 190-250VAC switchable
- Size: 2.0"W x 1.7"D x 9.2"H
- Weight: 0.6 lbs.

143853CF: Laser module mount

- Built to hold laser diode on target.
- X-Y tilt, θ movement
- Tightening screw for tilt adjustment

Part No.	Description	1	10
143845CF	Line laser diode module	$114.95	$103.95
143853CF	Laser diode module mount	49.95	39.95
173243CF	Cross hair laser diode mod.	89.95	80.95
143837CF	Regulated power supply	19.95	17.95

Line Laser Diode Level



SALE

- Skew is determined by built-in bubble
- Two magnets at the bottom of the unit for metal to magnet mounting
- Laser wavelength: 650nm • Line laser model
- Threaded mounting hole at the bottom of unit for tripod mounting • Size: 5.4"L x 0.8"W x 1.4"H

Includes: Manual, 2 AAA batteries and plastic casing

Part No.	Mfr. Cross Ref.	1	10
169762CF	TI3284E ~~$69.95~~	$49.69	$45.19

Laser Alignment Tool Kit



This industrial grade laser diode alignment system produces a collimated beam from a 650nm index guided laser. It is an ideal tool for a wide range of low power laser applications such as positioning, alignment, robotic control, and measurement. The system is fully self-contained with power supply, laser diode, and optics. Focal length is fully adjustable.

- Size: 9.0"L x 7.0"W x 2.0"H • Weight: 1.3 lbs.

Includes: Pushbutton switch, pressure pad switch, 3V lithium battery, universal mount, magnet mount, interchangeable lens cap (cross hair, dot, line) and hard carrying case.

Part No.	Description	1	10
215167CF	Laser alignment kit	$149.95	$139.95

Laser Pointer w/ Key Ring

Class IIIa Laser Product

- Range up to 150 yards
- 650nm red laser
- One-year warranty



Includes: 2 coin cell batteries

Part No.	Description	Size (L" x Dia.")	1	10
153613CF	Laser pointer	2.1 x 0.5	$16.95	$14.95

Glass-Lens Red Laser Diode and Line Generator

133292CF: Laser Diode

Class IIIa Laser Product

This lens design uses 3-element glass to collect almost all the power from the laser diode resulting in a brighter spot than many typical laser applications.



133292CF

- Operating voltage: 4.0–6.0VDC (recommend P/N 112070CF, pg 54)
- Maximum output: 4mW
- Beam size at 7m: oval – 5mm x 8mm
- Wavelength: 660nm
- Beam divergence: 0.2mrad
- Green LED indicator • Module size: 2.0"L x 0.5"W



134148CF

134148CF: 60° Line Generating Lens

- Adjustable focus range: 50 cm to ∞
- Back focal length: 1.5mm • Focal length: 8.0mm
- Beam divergence: 2.0mrad
- Lens construction: 3E.3G (glass)
- Fan angle: 60° • Length at 1 meter distance: 1.7 m

Part No.	Description	1	10	25
133292CF	Glass laser diode	$44.95	$39.95	$39.95
134148CF	60° lens	12.95	11.49	11.49

Laser Diode Module

Class IIIa Laser Product

- Operates on 3VDC @ <5mW
- 670nm wavelength
- Beam diameter: 3.2mm
- Working distance: over 50 meters/yards (daylight), 200 meters/yards (dark)



- Size: 0.9"L x 0.3"Dia. • One-year warranty

Part No.	Description	1	10	25
131203CF	Laser module, brass	$44.95	$40.49	$36.45

Laser Diode and Driver

182932CF: Laser Diode

Class IIIa Laser Product

- Optical output power: ≤5mW maximum
- Operating current: 30mA
- Operating voltage: 2.6V maximum
- Lasting wavelength: 650nm typical
- 5.6mm packaging size
- Beam divergence of 11 degrees from center line maximum



182932CF



161736CF

161736CF: Laser driver w/ regulator

- Input voltage: 2.6-6VDC • Input current: 40mA

Part No.	Description	1	10	25
182932CF	650nm laser diode ~~$19.95~~	$11.95	$10.79	$10.79
161736CF	Laser driver	7.95	6.95	6.95

Laser Pointer Pens



153605CF



127749CF

- Range up to 500 yards • 670nm red laser

Includes: 2 AAA batteries

Class IIIa Laser Products

Part No.	Description	Size (L" x Dia")	1	10
153605CF	Black pen	5.2 x 0.4	$19.95	$17.95
127749CF	Silver brass	5.4 x 0.4	21.95	19.95

Laser Light Show





Create all different shapes and sizes.

A Laser Light show in the palm of your hands. Push a switch for fascinating, ever-changing laser patterns. This state-of-the art laser device provides hours of fun for kids from 10 to 70 years young. A great and fun way to teach students about lasers and mechanical resonances. Create your own laser light show while listening and dancing to your favorite tunes. Or hang it around your neck creating your own magical lights. Laser movement can be switched off and can be used as a compact laser point.

- Range: 30 yards free form/500 yards dot point
- Ouput wavelength: 650nm
- Output power: <5mW
- Includes 3 LR44 batteries and neck strap

Part No.	Description	1	5
223714CF	Black case laser	$29.95	$25.95
223706CF	Red case laser	29.95	25.95

The Ultimate Laser Pointer with Dot, Underline, and Arrow Pointer



Choose the point that is perfect for your presentation.



The most advanced pen-style laser ever designed. No need to buy more than one laser pointer to get your presentation across. With a simple twist of the head, you can transform the powerful 5mW red laser into an arrow, or an underline, or a dot pointer up to 500 yards away. Use the arrow for pointing out details of an image, a dot for general use, and the underline for highlighting important text for maximum impact. Made of brass, and comes with 2 AAA batteries for 3 hours of continuous use and a gift case.

- Range: 100 yards for arrow, 500 yards for dot, 15 yards for underline
- 650nm red diode laser • Power: <5mW
- Color: matte black finish

Part No.	Description	1	5
223722CF	Laser pointer	$69.95	$65.95

Can't find what you're looking for? Check our website for additional laser products.

www.Jameco.com

XELTEK 40-Pin Low-Cost Universal Programmer

- SuperPro-Z features a universal ZIF socket that accepts up to 40 pins
- High-speed programming, cost-effective hardware and flexible software
- Supports 2500+ devices, including most E(E)PROM, Series E(E)PROM & FLASH
- Programs GALs, PEELs, PALCE, Microcontrollers, PIC16Cxx/17Cxx, COP87xx, and PSD3XX
- Tests TTL/CMOS Test, Memory Test, Vector Test, Test Pattern Edit, Auto Identify TTL/CMOS Device
- Load and save file in binary, Intel (extended) Hex, Motorola S or Tektronics (extended) Hex format. Multiple load, format conversion, relocation etc.
- HEX-ASCII Edit, Fuse Map Edit, Checksum, Swap, Vector Table edit
- Supports Windows® 95/98/ME
- Printer Port Interface
- Size: 7.8"L x 5.5"W x 0.8"H
- Weight: 4.0 lbs.



Includes: Power adapter, parallel cable, user's guide and CD-ROM software

Part No.	Description	1	5
231183CF	SuperPro-Z universal programmer	$244.95	$232.69

48-Pin Advanced, Low-Cost Universal Programmer

- SuperPro-280 provides a 48-pin ZIF socket that accepts any number of pins
- Supports 5000+ devices including E/EPROM, FLASH, Microcontrollers, PLD
- Tests standard logic devices and SRAM
- Programmable I/O level supports low voltage devices down to 1.8V
- Device insertion and pin contact check protect chips from damaging
- High-speed embedded CPU generates more accurate and reliable algorithm timing
- Supports Windows® 95/98/2000/NT/ME/XP
- Connect to PC via printer port
- Size: 7.8"L x 5.5"W x 1.0"H
- Weight: 4.0 lbs.



Speed Comparison

Device Type	Program (seconds)	Verify (seconds)	Pieces in 8 hour day
28C64B	1	0.8	7578
24C256	3	8	2215
W78E58	13	3	1600
PIC12C508	1	0.8	7578

Includes: Power adapter, parallel cable, user's guide and CD-ROM software

Part No.	Description	1	5
231191CF	SuperPro-280 advanced universal programmer	$444.95	$422.69

XELTEK Ultra-Fast 48-Pin USB & Stand-Alone Universal Programmer

- SuperPro-3000 is the fastest low-cost programmer in the market; programs high-density FLASH memory at near theoretical minimum programming time: (Intel 28F320W18 – 1.8 volts 32Mbit at 18 sec.; 13 sec. for programming and 5 sec. for verifying)
- Standard universal 48 pin-drivers support devices down to 1.5 volts; optional 100-pin expander module
- Currently 4,000 devices supported from 100+ manufacturers including memory, MCU, and PLD; 11,000+ by 1/1/2004
- Supports: EPROM, Paged EPROM, Parallel/Serial EEPROM, FPGA Configuration Serial PROM, FLASH Memory (NOR and NAND), BPROM, NOVRAM, SPLD, CPLD, EPLD, Firmware HUB, Microcontroller, MCU, Standard Logic
- Reliable programming of low voltage devices down to 1.5 volts
- Three modes of operation are supported: standard PC hosted operation via USB, stand-alone operation for manufacturing or service and built-in terminal mode to operate via an external instrument
- Over-current and over-voltage protection for safety of the chip and programmer hardware
- Microsoft® Windows® 98/ME/NT/2000/XP compatible
- Size: 9.4"L x 5.9"W x 2.0"H
- Weight: 5.0 lbs.



Includes: 12VDC@2.5A AC adapter, Program CD, USB Cable, user's guide

Part No.	Description	1	5
231221CF	SuperPro-3000 USB Universal Programmer	$989.95	$940.45

XELTEK 48 & 100-Pin High-Performance Universal Parallel Programmers

- SuperPro-680 features a 48-Pin ZIF socket with universal pin-drivers. By adding the optional PEP600 pin-driver expansion pack, it can be expanded to 100-pins
- High-speed embedded CPU generates more accurate and reliable algorithm timing
- Supports devices down to 1.8V
- Supports 9000+ devices, E/EPROM, FLASH, BPROM, Micros, Classic PLD, EPLD, CPLD
- Tests TTL/CMOS logic ICs and Dynamic/Static RAM
- Device insertion and poor-pin-contact check
- PC interface through printer port
- Supports Windows® 95/98/2000/NT/ME/XP
- Size: 11.3"L x 6.8"W x 1.7"H
- Weight: 4.9 lbs.



231204CF

Speed Comparison

Device Type	Program (seconds)	Verify (seconds)	Pieces in 8 hour day
28F320B3	88	80	169
28F800B	20	18	720
28F008	30	24	514
29F080B	48	23	389
28C64B	1	0.8	7578
24C256	3	8	2215
W78E58	13	3	1600
PIC12C508	1	0.8	7578

Includes: Power adapter, parallel cable, user's guide, CD-ROM software

Part No.	Description	1	5
231204CF	SuperPro-680 universal programmer	$889.95	$845.49
231212CF	SuperPro-680-100 programmer w/ 100-pin PEP600	994.95	945.25
231239CF	PEP600 100-pin programmer expander for 231204CF	154.95	147.25

XELTEK SMD Adapters for SuperPro 280/680/3000



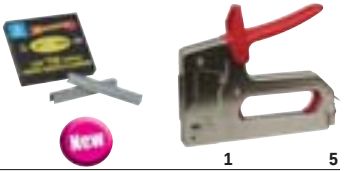
231247CF 231255CF 231263CF 231271CF

Part No.	Product No.	Description	1	5
231247CF	A008A	28-pin PLCC adapter	$84.95	$80.75
231255CF	A015A	32-pin PLCC adapter	94.95	90.25
231263CF	A244A	44-pin PLCC adapter	109.95	104.45
231271CF	A247A	48-pin TSOP adapter	174.95	166.25

Heavy Duty Gun Stapler

The AT-765 stapler is a heavy-duty, professional stapler. Its all-steel construction with hardened steel working parts are built for the most demanding of environments. Perfect for contractors, home do-it-yourselfers, and specialty trade applications. Uses arrow T50® staples.

- Nickel Finish
- Handle locking
- Adjustable high impact tension knob
- Comfortable rubber grip
- Visual reload window and rear loading
- For 5/16"; 3/8", 1/2", and 9/16" staples
- Weight: 2.1 lbs.



Part No.	Description	1	5
227969CF	Gun Stapler	$19.95	$17.95

Arrow Brand T50® Staples

Part No.	Description	1	6	12
230295CF	5/16" staples (1250 per pack)	$2.45	$2.35	$2.25
230308CF	3/8" staples (1250 per pack)	2.75	2.65	2.45
230316CF	1/2" staples (1250 per pack)	2.89	2.79	2.69
230324CF	9/16" staples (1250 per pack)	3.15	3.05	2.95

Great Holiday Gift Ideas!

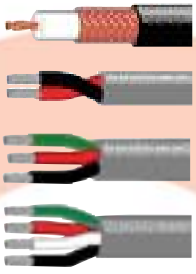
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